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ELEMENTS OF LANDSCAPE GARDENING.

Number Six.

Planting Out.—Ornamental Deciduous Trees.—Preparation of the Soil.

It is a common practice in improving grounds, as the nuclei of groups and masses, and to give at as early a day as possible, a clothed aspect to the place, to select the quickest growing trees, and to sacrifice the greater beauty of foliage to the exigency of the occasion. This is all very right and proper at the outset; but it is, nevertheless, equally right and proper that these trees should only be used as nurses to the choicer varieties that shall come after them. In other words—that they should only be employed until the finer selections have attained a sufficient growth to admit of the less valuable trees originally planted, being cut out. We fear, however, that this apparent sacrifice is not often made, although it would prove eventually of great advantage to the permanent beauty of the grounds.

There is another point upon which we desire to make a few remarks before entering somewhat more fully than we have hitherto done, upon the preparation of the soil and the proper mode of planting the trees. It is this—almost all novices in planting set their trees too closely together. It is a good fault where there is firmness enough in the improver to cut out his trees when they become too crowded. Nevertheless, in view of the reluctance to do this in almost all instances where pains have been taken to grow them—it is better to plant more sparingly in the first instance, and thus give the trees sufficient room to expand their branches into their finest forms. It is difficult to give any exact rule, as to the distance at which trees, intended either for groups or masses, should be planted apart from each other, for the irregularity which a due regard to copying the picturesque in nature demands, does not admit of it. We may, however, say that, as a general thing, thirty feet apart will not be too close; enlarging that distance to irregular intervals between many of the specimens. Another point—no trees

intended to produce the greatest beauty of effect should be trimmed high. On the contrary, their lower branches should be carefully preserved and should be allowed to droop gracefully on all sides wherever the particular character of the tree will admit of their doing so. This feature of low branching trees is so especially desirable whenever trees stand out singly on the lawn, or in their relation to the masses and groups elsewhere, that great care should be taken to preserve it and to keep off all stock that might injure the lower branches. Horned cattle, when suffered to run at large, are very apt to destroy the beauty of evergreens, and by browsing the lower branches of deciduous trees, and therefore they should be either excluded entirely from the dressed grounds, or the trees, in the earliest stages of their growth, should be protected from their ravages.

Another remark—trees should never be planted so close to the house as to shade it too much, or to allow the drip of their branches to fall upon it, or their falling leaves, blown by the wind, to choke up the spouts and gullies. On the north side of the house the masses should be heavy, and the shelter from evergreens and deciduous trees perfect; but, on the east and south fronts, the planting should be comparatively open, with wide sweeps and vistas through which the house may be seen to advantage, and along which, from the windows of the dwelling itself, the eye may travel in various directions, either to take in the beauty of the foreground, or to fix itself ultimately upon the finest points of the landscape beyond.

We have already, in previous numbers of the *Farmer*, referred briefly to the preparation of the soil and would here enforce it upon the improver that upon the thorough manner in which the work is done will depend the vigorous growth of the trees.

Before going into the actual preparation of the soil for planting, it is always best to examine the character of the ground and the nature of the sub-soil. To do this, it is simply necessary to dig a few holes here and there, some three or four feet

deep; and if it be found that water rises in them and remains, it will be absolutely necessary to carry it off by under drains, or the trees will not thrive. After this is properly performed, the ground should be trenched—with the spade on limited areas, but with the subsoil plough on larger spaces.

"Underdraining and subsoiling, says an excellent writer, "are the grand means of increasing the temperature of the soil, as well as equalizing it in this respect. They also supply moisture and air—the latter being of the first importance to the healthy action of the plants. The air admitted by the drains and porous earth carries with it, during the summer, heat from the sun, which is daily accumulating and which is retained for a long time, the earth being a bad conductor of caloric."

In planting, make the holes broad and tolerably deep, say at least three feet square. DOWNING, however, recommends, where the time and labour can be spared, that the diameter of the hole be not less than five feet, and cites as an evidence of the beneficial effects of this extra labour, the difference in growth observed by him in trees planted in three feet holes as compared with others planted in holes that were originally dug five feet across.

Do not plant too deep. No trees should be set deeper in the soil than they stood previously in the nursery, or from wherever they may have been taken.

In digging the holes, the subsoil should be placed on one side, and only the finer surface soil used in setting the tree. Where the soil is at all stiff, avoid the practice of treading it compactly about the roots, but rather, in finishing off, round it about the tree in a dish form, so that it may catch and retain an additional quantity of rain water, and may settle gradually even with the surface in the course of a short time. After the trees are planted, stake and mulch them; and if this is properly done, the trees will grow well and scarcely show any decrease of vigour by their removal.

WHEN TO CUT WHEAT.—Here is something worth the consideration of all wheat raisers. A club of ten farmers in Pennsylvania (Chester county) made experiments in cutting wheat. Their conclusion was that the best time to cut wheat was "when the grain can be pressed between the thumb and finger, and leave nothing but the husk and a thick pulp, without any fluid around its edges." If cut earlier, there will be loss; if later, there is less weight to the bushel. A few days before or after makes little or no difference.

Bountiful crops are more profitable than poor ones. Make the soil rich; pulverize it well, and keep it clean, and it generally will be productive.*

HINTS ON COUNTRY HOUSES.

Number Six.

Decorations and Furnishing of Interior.

We have already touched upon this important subject, but it will bear amplifying to advantage. It is, nevertheless, not our purpose to offer any suggestions in regard to villas of the highest grade, with their halls and corridors, their libraries and picture galleries, their suits of rooms and servants' offices. Our object is rather to point out what will promote the comfort of a household living on a simpler scale of expense, and ranging from the farm house to the cottage, and from the cottage to the humbler dwelling by the wayside.

A word in passing, as to exterior colour, before we touch upon the interior arrangements. In nothing has a greater change for the better been observed of late years than in the use of neutral tints for country cottages of all grades. Fawn, cream color, cool gray, and all the variations between the extremes of these tints, with darker or lighter tints in harmony with the body color defining the doors and window frames, the shutters, cornices and pillars. These are changes in the popular taste which every body must commend and which every body may well wish to see generally adopted. The color of the offices surrounding the homestead should be no less the subject of careful study, and whatever tint may be adopted it should be such as will harmonize with and yet be subordinate to the main dwelling.

Passing from this to the interior, we cannot but recommend, wherever the timber for the building is the product of the neighbourhood and is gotten out at the saw mills of the vicinity, that a liberal use of native woods should be used for decorative purposes in the interior construction of dwellings of the better class of the kind under notice. Oak oiled and without varnish, is infinitely preferable for doors and balustrades, than pine painted over and grained in imitation of oak, and is certainly not much more costly to work up if we take into consideration the expense of painting and the constant need of renewing that paint at intervals. We may say the same of black walnut, and of the chestnut, both of which are easily worked, and may be had in some districts in abundance. These woods, for interior work, well rubbed down and oiled, are as superior to painted pine as the true thing is to the thing imitated. We therefore suggest the use of our native woods, including the cherry and maple, to the thoughtful consideration of those who intend to build in the country. We are, moreover, old fashioned enough to recommend that the dining room of a farm house or of a cottage of some pretension should be wainscoted in simple paneling. It is an admirable pro-

tection to the walls from the floor up, and is a feature of those old houses of solid construction which we should like to see restored. As to the interior walls, we prefer that they should be plastered after the ordinary mode, and papered instead of being white coated. Where the walls are to be painted—which is not often in such dwellings as we are treating of—white coating is an essential preparation for the reception of color. But, as we have said, we prefer that the walls should be rough plastered and papered; not only in the lower apartments but also in the chambers. Our reasons are that pure white is a trying color to the eyes, both in the summer when the sun is very brilliant, and in the winter when the snow is on the ground. Moreover, there is nothing that so much assists in giving a clothed aspect to a room as papered walls. White rooms, however well furnished, have still a bare and desolate look, but paper on the walls, of a pretty design, harmonizes with the curtains and matting, or oil cloth in summer, and with the carpets and heavy furniture in winter. Now, then, as respects the other interior decorations. In the first place, they should be plain and simple, and befitting the station of the members of the household. In the second, all the furniture should be solid and substantial.—No cheap auction gingerbread work should be allowed a place in such a house. It is vulgar and pretentious; it violates the sense of fitness and is wholly destructive of that feeling of comfort and ease which is the best attribute of such a home.—The chairs of the dining room—say of a farm house—should be large and roomy, and of solid oak.—The tables may be of oiled walnut, sturdily built.—The blinds—if blinds are used—should be painted of some subdued color; and the windows should be heavily curtained in winter to temper the air and improve the warmth of the apartments. Coal is so much more economical than wood, even at the present high prices of the former, that its use is advisable wherever it can be obtained within easy hauling distance; but we would not, for this reason, dispense with ample fire places, so constructed, however, as to throw the heat into the room instead of allowing it to escape through a wide throat up the chimney. Furnaces and stoves for living rooms, except where it is especially desirable to economize fuel, should always be avoided as prejudicial in some respects to health, and at variance with that sociability which always appertains to a generous open fire. The best fuel for such being composed of back logs of hickory or beech, and in front a full supply of bituminous coal supported on an iron grate.

For any hoed crops, a clean soil is a greater advantage than most people are aware.

LIQUID MANURES.

Correspondent O. S. W., in the *Germanstown Telegraph*, offers the following suggestions on the subject of Liquid Manures:—

"The economization of the liquid manure made on the farm, is a matter of great importance to the agriculturist. The water from the sink and laundry, as well as the liquid voidings of the animals, should always be preserved and applied to the fields and crops. This may be cheaply effected by conducting it into "tanks" or reservoirs, properly constructed for its preservation, or by using it in irrigation. Common muck or mould, saturated with this valuable liquid, and allowed to ferment, is a most excellent and energetic substitute for humus in any soil. It has been estimated, by judicious judges, that one hogshead of soap suds, which has undergone partial decomposition, is actually worth, for manurial purposes, as much as a half a cord of the best stable manure. It contains the pabulum of vegetable life in a state of solution, and acts with a promptness and a sustained energy peculiar to itself. We are acquainted with no better article for irrigating cucumbers, melons, and other similar vegetables during the incipient stages of their developments, than fresh suds. The proper time to apply it, however, is early morning, or in the evening, after the sun had set."

The same correspondent throws out the following timely and sensible hints on the accumulation of *Materials for Manure*:—

"As soon as the yards are cleared of the old manure, the business of accumulating materials for a fresh supply should commence. Muck, mould, chip manure, clay, old leaves, rotten wood, sods, refuse straw, and indeed all articles and substances capable of decomposition, are valuable for this purpose.—They should be deposited in *strata* to facilitate the thorough incorporation of the ingredients, and covered occasionally with pulverized gypsum, hydrate of lime, charcoal dust, and such other 'absorbents' and 'fixens' as will tend to economize the gaseous emanations from the mass. The hog yards ought to be continually supplied with good muck, mould and other refuse matters which the animals will work up and make into good manure. In this way large quantities of excellent dressing may be furnished at an expense merely nominal."

Abstraction of Sorrow.

And she forgot the stars, the moon and sun,
And she forgot the blue above the trees,
And she forgot the dells where waters run,
And she forgot the chilly autumn breeze;
She had no knowledge when the day was done,
And the new moon she saw not: but in peace
Hung over her sweet Basil evermore,
• And moisten'd with tears unto the core. [Keats]

Our Agricultural Calendar.

Farm Work for June.

Although nearly every available crop of the season is in the ground, and the smaller cereals well advanced towards maturity, this month is necessarily one of great activity; whilst the scarcity of labour must tax the farmer's energy to the utmost extent. Under these circumstances a constant personal supervision becomes imperative. No time should be lost in desultory operations; the clover will be fit to cut, and must be promptly cured and harvested; the corn, from the backwardness of the season, will require steady and frequent tillage with the shovel plough, the cultivator, and the hoe, and there are minor crops which may yet be pitched to make up for deficiencies. As this month is the latest in which such work can be done preparatory to the harvest, which must be attended to at or about the commencement of July, it will be incumbent to have the growing Farm crops in that state of progression which will admit of their being laid aside either temporarily or permanently, in view of the serious and heavy labours that are to ensue. What remains at this time to be done we now proceed to state:—

CULTIVATION OF CORN.

Keep the shovel plough, the cultivator, and the hoe constantly in the corn ground, loosening the soil and rendering it as light as an ash heap—so light, indeed, that no clods shall remain, and that the foot shall sink in the loose earth in passing through the rows. Above all, see that the hoeing is carefully done, so that no weeds are allowed to impede the growth of the corn, and rob it of a portion of its necessary sustenance. The use of the plough at this late period of the season is not advisable, as the roots of the corn extend laterally in a perfect network across the intervals, and, to a very large extent, lie near the surface. Every root cut injures to that extent the vigour of the plant; by depriving it of innumerable mouths—so to speak—that are ramifying in every direction in search of food; and besides this, wherever the manure is brought to the surface, it is deprived of that mechanical action which the under soil imparts to it, and without which it cannot be rendered soluble and in a condition to be taken up by the fibres or small rootlets, to which we have already alluded.

MANGOLD WURTZEL.

Although very late in the season, the mangold wurtzel and the sugar beet may both be put in up to the 10th of this month. Of course, the crops of these desirable roots will not be so large as if the seedling had taken place a month or two earlier; but where additional provender is required for winter use, they can still be grown to advantage.

CARROTS.

The carrot should have been seeded as early as the 1st of May, but like the beet and mangold wurtzel may yet be put in as late as the first week in June with a fair promise of a crop. Choose, if you can, a deep, sandy loam. Manure with well rotted dung—long green manure must be avoided—or else use 200 lbs. Phosphate Guano to the acre. Plough deep, thoroughly pulverize the soil, and follow the directions for general tillage which have already been given in previous numbers of the *Farmer*.

POTATOES.

As in respect to the root crops already mentioned, so in regard to potatoes. The season is already too far advanced to put in a crop with the hope of a heavy yield. Potatoes may, nevertheless, be planted up to the 10th of the month, and if the frosts should not set in until late a fair crop may be gathered.

BROADCAST CORN.

Prepare a few acres for broadcast corn, by heavy manuring, deep ploughing, and thorough pulverization; roll and sow broadcast thereon at the rate of three bushels of corn to the acre. Harrow and cross-harrow the seed well in, and complete the work by rolling. After cutting broadcast corn for the use of the stock in the autumn, it should be suffered to wilt in the sun for twenty-four hours before feeding it off.

MILLET.

Where the hay crop is deficient and a change of food from broadcast corn is thought to be desirable, a few acres may be profitably seeded to millet. The land, as in the case of corn, should be heavily manured and well ploughed and well harrowed. Under these conditions four tons to the acre of good serviceable millet hay may not unreasonably be expected. Sow three pecks of millet seed to the acre, and after harrowing it in, follow with the roller. The time of cutting millet is when the seed at the top of the head begins to turn yellow. After the grass is cut, let it lie in swarth for twelve hours, and complete the curing in cocks.

CUTTING CLOVER.

Clover should always be cut when about half the heads have turned brown.

BUCKWHEAT.

Sow this grain at any time during the month—half a bushel of seed is required to the acre. The soil should be tolerably rich, and if it is not, ten loads of compost, or 200 lbs. phosphatic guano will suffice to bring a good crop.

RUTA BAGAS.

There is no species of turnip that is hardier, more productive, or more palatable to stock than the ruta baga. For table use also in the early spring, it is much superior to the white turnip and will preserve its flavour longer. It is, moreover, easily kept throughout the winter.

As to Soil.—The best soil for the ruta бага is a light, sandy mould; but it may be grown with success upon any soil that is sufficiently enriched; provided the ploughing be well done and the pulverization thorough.

Preparation.—Wherever the soil is stiff, it should have not less than two ploughings; running the plough each time as deeply as possible. The seed may be either sown broadcast or drilled in, but the latter method is much the best. In case the drill system is adopted, well rotted manure, or guano at the rate of two hundred lbs. to the acre should be spread in or sprinkled along the furrows. Cover the drills with two bouts of the plough as if covering potatoes. Flatten down the ridges with the roller or back of a rake, and sow the seed along the flattened crest of the ridge in a thin drill of about half an inch in depth, cover the seed with the back of a rake, and the work is finished.

After Culture.—The after culture consists only in thinning out the young plants to eight inches apart along the drill; keeping them free of weeds with the hoe, and running the cultivator through the intervals.

POULTRY HOUSES AND POULTRY.

Clean out the poultry houses weekly. See that the fowls have access to a running stream or provide them with fresh water twice a day.

MATERIALS FOR MANURE.

Collect all such materials as may be converted into manure, and compost them with the manure of the barn yard, and the ashes and wash-water of the house.

MEADOWS.

Where meadows need renovating, harrow them after the crop is taken off, and broadcast to each acre two bushels of bone dust, mixed with five bushels of unleached ashes, and one bushel of salt.

FENCES, GATES, AND BARS.

If any of these need repair, see that it is done at once, to prevent alike the intrusion of stock belonging to others and the escape of your own.

ORCHARDS.

Gather up such fruit as may fall and feed it off to the cows and hogs. Apples cooked and mashed and mixed with corn meal or brown stuff are excellent food for cows, and will sensibly increase the yield without affecting the taste of the milk.

BONE DUST.—Apply half bushel of fine bone dust, annually around your old apple trees. It is a powerful promoter of fruitfulness and longevity, and is in many respects the most efficient stimulant that can be used. In compost, bone dust, or crushed bones, is invaluable. Bones dissolved in sulphuric acid diluted with water, furnish an excellent manure.

Garden Work for June.

The work that claims attention in the garden during this month, is as follows:

Melons—Canteleupes.—Attend to these, free them of weeds, keep the earth stirred about the vines, and water freely after sunset in dry weather.

Bunch Beans.—In the early part of the month plant a few rows of bunch beans, and renew the planting at the end of ten days for succession.

Peas.—Drill in a few rows of the marrowfat variety of peas every ten days, choosing a shady border, if possible, now that the heats of summer are coming on.

Setting out Cabbage Plants.—Avail yourself of the first moist day to set out cabbage plants. Water them freely after sunset until they are established and begin to grow.

Cucumbers and Cymblins.—Keep these clean, and water frequently in dry weather.

Sweet Potatoes.—Draw earth around the hills to quicken the growth of the roots. Take care not to injure the vines, but lay them, whilst working the soil, carefully aside. Keep the soil free of weeds, and water occasionally in dry weather.

Cauliflowers.—As the early cauliflowers are about coming to head, the leaves should be carefully broken down over them to preserve the flowers from the sun and rain.

Plants that are advancing in growth or coming into flower should be frequently watered. Draw the earth about the stems, hollowing it so as to retain the water. Plants of late sowing should now be set out in moist or cloudy weather.

Sowing Cabbage Seed.—Sow seeds of early sorts to raise cabbages for fall use.

Brocoli.—Set out Brocoli plants and treat as recommended for cauliflowers.

Celery.—Set out the young plants in trenches prepared to receive them, as soon as they are of a sufficient size to remove from the seed bed.

Asparagus Beds.—Keep them clear of weeds.

Leeks.—These may now be set out.

Lettuce.—Set out lettuce plants from the seed bed to head and sow more seed.

Small Salading.—Sow seeds of all kinds of small salading every ten days for succession.

Carolina and Lima Beans.—Hoe and weed these. Earth them well up and be careful to see that they have poles properly placed for the support of the vines.

Radish.—Sow a few rows of summer radish seed.

Carrots, Parsnips and Onions.—Keep these clear of weeds. If your onions show a disposition to go to seed, bend down their tops—but without breaking them. In a few days bend the tops gently back again.

Beets.—Thin out these, if not already done, to from eight to ten inches apart in the rows. Keep the soil loose and perfectly free of weeds; a top dressing of refuse salt will largely stimulate the vigorous growth of this root.

Early Turnips.—Prepare a bed and sow the seed towards the close of the month.

Salsify.—Thin out the salsify so as to stand about six inches apart in the rows and keep the plants clean.

Okra.—Thin these out, weed them with hoe and hand, and draw earth about the roots.

Tomatoes and Egg Plants.—Set out your late tomatoes and egg plants on a moist day; shelter them from the sun for a day or two with green branches, and water freely after sunset in dry weather.

Red Peppers.—About the middle of the month set out red peppers of various kind in rows two feet apart, and twelve inches apart in the rows themselves. In planting, water freely and keep the earth stirred and free from weeds afterwards.

Pot and Medicinal Herbs.—These may now be planted out, selecting a good season for the work. Moist or cloudy weather in all planting operations is to be preferred. In fair weather, water and take care to shade the slips or roots for a few days.

Gathering Herbs.—All kinds of herbs for drying or for distribution should be gathered when they are coming into bloom.

WARM SOILS.—Black or dark colored soils are sooner warmed by the sun's rays than those of a lighter colour, and remain constantly of a high temperature so long as the sun acts on them. An elevation of several degrees in the temperature of a light colored soil may be caused by strewing its surface with peat, charcoal powder, or vegetable mold. Melons are ripened even in coolest summer, in Friberg, Saxony, by strewing a coat of coal dust an inch deep over the soil. In Belgium, and on the Rhine, it is found that the grape matures best when the soil is covered with pieces of clay slate. Girardin found, in a series of experiments on the cultivation of potatoes, that the time of their ripening varied from eight to fourteen days, according to the color of the soil. He found in August 25th, in a very dark humus soil, twenty-six varieties ripe; in sandy soil, twenty; in clay, nineteen; and in white lime soil, only sixteen. That dark soils may actually attain an increased temperature of three to eight degrees over light colored soil is a matter of direct observation.

A CHILD is never happy from having his own way. Decide for him, and he has but one thing to do; put him to please himself, and he is troubled with everything and satisfied with nothing.

COMMUNICATED.

FOR THE FARMER.

FARMING AND STOCK RAISING.

In a conversation with some of my neighbouring farmers, a few weeks since, the question was mooted, what are we to do on our farms now that labor is in a transition state? and the subject of Stock Raising, in many different aspects, was discussed.

I have thought, though of course I can suggest nothing new, that it would be well at this time to propose, for persons like myself, who are unable any longer to work their estates on the old method, to exchange our ideas as to the best method,—first, of gradually getting into stock raising—and next, what, under the present state of things, is the best kind of stock to purchase. Let us suppose that our lands are adapted to grazing; for unless this be the case, my suggestions amount to nothing; and then, that we agree in the general proposition, that the old grain rotation is no longer a profitable system; the sooner then we get our lands into grass the better. And on this subject let me urge the importance of seeding down with other kinds of grass besides Timothy—in my opinion the most precarious and least profitable of any other, that is, by itself. Mix different kinds of grasses, use if possible some sort of top-dressing the first year, and seed down without any kind of grain. Is it best to give most prominent place to horses, cattle or sheep?—or shall we combine the three? The only way to determine this is, to consider the market we have at our command; and the character of our land. In some situations, such as very hilly districts, badly adapted to the production of the heaviest kind of pasturage, sheep would probably be the most productive. If on the contrary your meadow land and lower ranges of hills preponderate, let cattle or horses share your largest attention.

And who shall decide for us amongst the advocates of some half dozen different breeds of cattle which is the best?

One of my neighbors raises nothing but the giant Short-horns, and ridicules my friends' notion, a half mile distant, that there is any virtue in his pigmy Alderneys. Again, the Devons, and also the Ayrshires, have in another section their exclusive champions. And—would you believe it—several old settlers around me, declare, that for them, their mougrel stock, (as I call it, not they) does well enough—"me judice" this last class ought to be drummed out of every decent Christian agricultural fraternity.

Let us examine the claims of the advocates, for the two first divisions; which I shall call the large and small breeds; candidly admitting that I range

myself, before the question has been decided by judge or jury, with those who stand up for the grand old Durhams and Herefords, and, "par excellence," the former. My reasons for this, are, that they combine full a score of advantages over their dwarfed brethren—have space to mention only two or three. If you raise for the butcher, certainly they have the advantage over either the Devons or Ayrshires, and our little friends, the Alderneys, are no where. Do you want good oxen, then nothing, except the Devon, can again bear comparison. Do you prize your dairy as the chief source of your revenue, then am I satisfied, that my half dozen Short-horn ladies would be chosen in any country for wet-nurses, whilst none of the others could even get situations.

But whatever breed you may select, do have your Bull a *pure bred animal*, and not lend yourself to any theory that the progeny of any cross bred animal will equal that of one who boasts a distinct strain for generations back; and who has a better title to a patent of nobility for the purity of his descent, than the proud Magyar or Norman Baron.

I am very much afraid, Mr. Editor, that our Maryland farmers have a very indistinct notion of what is pure bred; as an instance, I have for the past week been advertising to purchase a few thorough-bred mares, and out of fully twenty respondents, all claiming to have the article I am in search of, I have found only one with a pedigree.

In my opinion, purity of blood, (no matter what stock you raise, be it even hogs,) better housing in winter, and higher feeding the first year, are the only foundations for the successful raising of stock.

Another matter of vital importance to our progress in the right direction, is, by all means, to keep your male animal from associating with the sisterhood, until you know his services are required; and if you ever expect to raise anything to pass amongst the knowing ones, let him never want for plenty to live on, and comfortable bachelor quarters.

I had intended giving you the full benefit of my possibly illly digested thoughts on the subject of raising horses, but already have taken up more room than any value attached to my suggestions would entitle me to occupy in your journal.

Has it ever occurred to any sensible mind, how far behind our good old forefathers, we are on this very subject of horse raising? Why sir, I can assure you, twenty-five years ago, there were more good horses in a single county in Maryland, than you can now count up in the whole State. But where are they gone to? Consumed by the never sated demands for military service? Not at all—we have not had the same class of horses for years.—Should the present system of breeding continue for twenty-five years longer, we shall witness a still

greater degeneracy. I am fully aware, in making such a bold assertion as the above, that I am treading on delicate ground, and that I shall have hundreds of opposing partisans, who belong to that class who swear by that mongrel race, the trotting stock. I do not wish to be understood as depreciating the advantages gained by having a good class of trotting horses, capable of making their mile in three minutes and under. But, the question is, are we not sacrificing powers of endurance, and beauty of form, to this Moloch, speed? I maintain we are, and if there is any such thing as a true principle in breeding, so surely shall we be propagating a mongrel race by using the *impure* bred trotting horses for the purposes of *cross breeding*. And I go farther and say, that even for trotting purposes, we shall never be able to *keep up* a good trotting stock by a constant admixture of trotting strains, with trotting strains.

Did you ever see one of your trotting horse cards, that the proprietor was not extremely solicitous to trace back a pedigree to some thorough-bred sire or dam; and verily his solicitude shows wonderful sagacity, for without even this little strain, not much good can any one expect from his offspring. From some racing sire or dam, are all our trotting celebrities indebted for that action and bottom which has given such wonderful bursts of speed.

A gentleman asked me recently, what I would have—should farmers raise, then, nothing but race horses? Not at all—but by all means have race-horse blood in the horse you elect, and that of the purest strain—a pedigree unblemished by a single foul suspicion.

I have had occasion during the past winter to visit some of the largest and most successful breeders of stock in the Northern States, and, with but one exception, I find they all agree in the necessity of using a thorough-bred stallion. Yours,

THOROUGH-BRED.

ON RAISING TOMATOES.—I often have inquiries how I get my tomatoes ripe so early, and accordingly give my mode of raising them through the *Farmer*. I start them in the house about the first of April in boxes, as soon as the season will permit, I transplant in hills three feet apart, one stalk in a hill with one shovel full of hog manure. I use ashes around the stalk. I use a rack to keep them up from the ground, and as soon as the tomatoes form as large as a potato ball, I cut off the tops and every branch, and every leaf that has no tomatoes on them. By so doing it lets the sun in and they ripen off very early.—*Cor. Maine Farmer*.

There has been a decline of more than \$60,000,000 in four years, in the annual productions of Ireland.

FOR THE FARMER.

ABOUT TREES.

From the earliest ages down the value of every species of arboreal vegetation has neither been unappreciated nor neglected by the family of man.—The great forests, which a beneficent providence has planted in all countries of the earth, have ever been in request to subserve the innumerable purposes of commerce and civilization, and have, through every period, furnished the material by which the unbounded demands of the human race have been supplied. Used at first as a simple article of fuel for the comfort of an infant race, the products of the forest have been increased in usefulness and value until it is now difficult to conceive the possibility of dispensing with their bounty. They are not only now found to embrace food, fuel, raiment and medicine, but the implements of husbandry—the foundation of all progress—the habitations of men in every region of the globe, and the instruments of commerce, connecting and improving by intercourse the inhabitants of remote nations, have all been dependent upon them through many ages, and are likely to continue so, in a perhaps varying but still increasing scale through the measureless future.

But as unbounded as may appear the value of trees in this view of their usefulness, their is yet another which illustrates, in a most forcible manner, the beneficence of the Creator, no less than the fact that trees were not only created for the comfort and enjoyment of human life, and the development of human civilization, but are indispensably necessary to support and continue that life itself.—It has been determined by exact and enlightened experiment, that trees derive by far the larger portion of their subsistence from the atmosphere—that, as the lungs of animals inhale this element, retaining the oxygen for the manufacture of arterial blood and giving back the carbon to the air; so the lungs of trees—the leaves—absorb upon one side the carbonic acid gas—most rapidly where it is in excess in the atmosphere—retaining the carbon as a solid for their sustenance, and disengaging, and giving out upon the other the oxygen which it does not need, for the purification of the atmosphere and the revitalization of animal blood. Here then, every solitary leaf of the untold millions that robe the forests about us, constitutes in itself a miniature laboratory which is silently performing the two-fold purpose of supplying its own necessities and furnishing the animal kingdom with the means of life. In this view of the case—and it is sustained by many of the greatest names in agricultural chemistry—we are as much at a loss to discover how animal life could be sustained without the aid of trees, as trees could flourish without the presence of animal life;

since the breathing of animals is constantly increasing, on an immense scale, the quantity of carbonic acid gas in the air, whilst the leaves of trees are as constantly re-establishing the equilibrium by taking up that gas, retaining for themselves the noxious carbon, and giving back to the common fund the oxygen which they do not require. Not to one species alone, but to every tree then, belongs the title of *arbor vite*—the tree of life.

In great cities nothing contributes more to the health of crowded populations, than the presence of trees, particularly of the more rapid and vigorous sorts; and in the country, where the presence of carbonic acid and other malarious gases are greatly increased, especially in low situations by the decay of the more ephemeral species of vegetation, they are really indispensable to preserve the husbandman against malarious disease.

We protest, then, against the careless destruction of these noble benefactors. To him whose acquaintance with the great and beneficent office which they are constantly performing is insufficient to restrain his idle hand, we say in all solemnity, "Woodman, spare that tree!" On the contrary, if it has no other value in your sight, cherish and protect it, since it is your guardian angel, standing sentry on the hills to protect you against the inroads of disease.

Leaving ornamentation altogether out of the question there is no dwelling in the country which should be unsurrounded by its belt of trees. The little inconvenience sometimes dreaded of their forming a harbor for insects, is not to be weighed in the scale against the many pleasures and incalculable benefits which flow from their presence.

Room, then, for the trees! and not only when winds prevail, but when disease and death shall taint the vital air about us, they will be found to

"Wave on high their plumes of green,
And nobly battle with the storm!"

WELDED BOILERS.—Instead of riveting the plates of steam boilers, efforts are now being made to weld the plates, thus to produce boilers free from joints. The method of effecting this is to heat the edges of the plates to a welding heat with gas flame, and hammer them together. A small cornish boiler has been finished by this method. In forming the deck beams of the iron frigate *Warrior*, the webs of 2 T-irons were joined together by a bar of H section called a glut, which, with the edges to be welded, was raised to a welding heat by jets of gas flame; the whole was then welded together, uniting the angle irons and deck beams into solid forgings, instead of bolting or riveting them together. In the building of iron vessels this system deserves universal attention.

ROTATION OF CROPS.

We take it for granted that most farmers fully understand that all the various crops grown, differ from each other in the amount of certain constituents which they contain—as, for example, of lime, potash, soda, &c.—and that the proportion of these same constituents varies for different soils. This granted, the conclusion is inevitable, and philosophic, that certain crops will, faster than others, consume the available amounts of this or that constituent in the soil, and on that account be more or less profitably grown on a given tract of land. And this is the foundation of the rotation of crops. For, after any particular crop, as wheat, for instance, has exhausted so much of a certain available constituent, such as lime, or phosphorus, and yet possesses in abundance the elements especially required by some other crop, it is simply the dictate of common sense to stop growing the first, and for a time, cultivate the other. This would give a better return for labor, for the present, and after awhile, by the action of water, air, heat and cold, the minerals in the soil which supply the requisite lime or phosphorus will have been so far decomposed as to again make possible the profitable growing of wheat.

All this, we say, is doubtless, well understood by a majority of intelligent farmers; and yet how very few in number are they who, to any extent whatever, practise upon this principle.

We are acquainted with lands, even in this young State, upon which nothing but wheat has been grown for the past twenty years! Wheat was, at first, about the only crop that was marketable, and will always command ready cash at some price, and, therefore, they have kept on, regardless of the undeniable fact, that to-day they produce several bushels less to the acre than when they commenced.

It is natural enough that farmers who have never governed their course by the established principles of science, should begin this unreasonable practice of exclusively growing a crop for which there was an immediate and unfailing demand, inasmuch as the soil of a new country is popularly considered as next to inexhaustible. But then, why continue it for years after there is undeniable evidence of its absurdity?

In those countries where agriculture has made its highest practical attainments, it is a rule never to grow successive crops of wheat, or other small-grain cereals, on the same piece of land.

No rule of rotation can be laid down that will be adapted to all circumstances, for it must depend, to some extent, upon differences of soil, as well as upon the nature of the market demand; but then the modifications are so easily made by any farmer of good judgment and common intelligence that no one need be at loss as to the general course.

A system practiced with good results in some parts of this country is what is called the *five-shift* rotation. The farm is divided into five fields, and the rotation commences with Indian corn, which is followed, in regular succession, by oats, wheat and clover. The corn and oats are of a nature to cleanse the soil, and very properly, therefore, precede. As soon as the oat crop is harvested the ground is plowed, manured, and sown with winter wheat and timothy, clover being likewise sown upon the same field in the wheat crop, the grass is mown; the second year—which is fifth in the course—it is pastured, and turned under in the fall for corn, which, in the following spring, again begins the series.

If it is desired to grow other crops, such as rye, barley, turnips, &c., it is simply necessary to have a larger number of fields, and to take care that the green crops be thrown in between the more exhaustive grain crops. Turnips and other root crops have the effect to shade the soil with their broad leaves, to pierce and more thoroughly open it by means of their long tap-roots, and in other respects tend to the improvement of the land. For these reasons, and because they are rather essential as food for stock, it is to be regretted that they do not oftener find a place in the rotation systems of the few farmers in this country who are wisely aiming to conduct their farming operations on sound principles.

Rotation is also important for other reasons than the one above urged; it helps to rid the soil of insects which very naturally come to abound in a soil devoted to the same crop for successive years, and it insures to the farmer that variety of crops which is his only sure guarantee against those disastrous losses which sometimes fall upon those who foolishly stake their all upon a single crop.

Much more might with propriety be said on this very important subject, but we trust that all, who have been induced to reflect on it, appreciate the reasons urged, and will begin, the coming season, to shape their farming plans in practical conformity therewith.—*Wisconsin Farmer.*

TOBACCO IN MASSACHUSETTS.—The town of Hatfield in Massachusetts raised 675 acres of tobacco last year, the product of which at 30 cents per pound, less than the average price for that which has been sold, would bring \$325,000. This gives \$250 to every inhabitant of the town. It is also related of a farmer of the same town that he has received \$18,000 for the product of his farm last year, \$14,000 of which is clear profit. He raised 600 bushels of corn from 12 acres, and on 25 acres 21½ tons of tobacco, which sold for 32 cents per pound.

Rats and other vermin are kept away from grain by a sprinkling of garlic when packing the sheaves.

STAGNANT WATER.

Of all the causes that contribute to render soils poor and worthless, we believe there is none more active than stagnant water, on the surface or immediately below. Such soils are invariably close and tenacious, and commonly quite unproductive.—Where there is a retentive subsoil, the surface generally abounds in clay, is difficult to work, and gives a less reward to labor than almost any other. This is owing to the stagnant water held by it, as none of the valuable plants can flourish in a soil so constituted. Land is liable to injury from this cause, on which water during wet weather rests on the surface for even a short period, for the roots of a plant cannot penetrate a soil freely, in which the density is such that rain water does not freely sink through it to the natural drains in the subsoil, below the ordinary range of the roots of plants. Water is essential to the growth and perfection of plants, but water that does not circulate, or which exists in too great quantities, is fatal to them; and the first thing to be done, is to free soils from this incumbrance, if we would give it productiveness, and render it easy of culture.

It is from these well known effects of stagnant water, when on the surface, or within reach of the roots of plants, that the necessity of draining arises, and which system of operating, when fully carried out, completely changes the character of lands submitted to such a course. Manures applied to soils abounding in stagnant water, can produce little effect; the salts they contain are diluted, and cannot produce that action, or circulation of atoms, which appear absolutely necessary to productiveness. In clay, or in stagnant water, where substances are not exposed to heat or atmospheric agencies, decomposition is slow. Every farmer knows that manure produces much more effect on loam, gravel, or drained clay soils, than on those so retentive as to have water on or near the surface. Draining then, and aëration, or the exposing the soil to atmospheric action, to the influence of the sun and air by deep ploughing, seems to be the only thing that can be relied on to correct this serious evil.

Instances indeed occur in which the wetness of land is produced by springs, which rising from the earth, spread over it; but in far the greater number of cases, the stagnant water is owing to a retentive subsoil, that prevents the escape of such water as falls upon it. In either case, however, the remedy is the same; and in the language of Morton on Soils, complete and perfect draining is the foundation of all improvement in husbandry, and it should, therefore, be the first step which we take in attempting to improve or ameliorate the soil.

A very large proportion of the lands in this coun-

try, are of that class that suffer more or less from the accumulation of water. No person can traverse it in various directions, without being sensible of this fact; and in consequence of such liability to suffer, the land in many districts is cold and poor, as land not freed from stagnant water always must be. The hard pan lands which cover so large a portion of the country, may be named as belonging to this class, though some of these contain more clay than others, and are therefore more shallow and difficult to work than others, where the subsoil, although still too retentive, lies deeper, and is therefore not so injurious as the first kind is well known to be.

Much of this hard pan, when freed from its stagnant water, drained and plowed, will become very fertile and productive: indeed there is no case in which a soil cannot by sufficient labor and expense, be made precisely what is desired. The native earths that go to constitute soils, the clay, sand, and lime, in themselves do not make a soil productive; properly mixed and proportioned they constitute a base for the action of the vegetable and animal manures, and the various salts or stimulating agents, that excite the organs of plants to vigorous action, and enable them to make the secretions from the matter furnished them, to be appropriated to the growth of the plants. Man, then, has only to do what nature in some cases has herself done; that is, so proportion the several ingredients that go to make a productive soil, that the desired result shall be attained. Chemical analysis has here come to the aid of the agriculturist, and shown him precisely the proportion of the earths, and the nature of the ingredients that are necessary to make a soil fertile, and the causes that tend to advance or retard such a consummation. Where water is too abundant, it must be removed by draining; where the soil is too compact, it must be loosened by deep or subsoil ploughing; where the proportion of clay is too great, sand must be added until it is sufficiently friable; if lime is absent, it must be added; if animal or vegetable matter be wanting, it must be supplied; and if the soil is too light and porous, clay will be found a remedy most effectual.

Whatever difference of opinion, therefore, may be entertained of the best methods of freeing land from stagnant water, there can be no reasonable doubt of its propriety or necessity. To the farmer who has lands wet, cold, and difficult to cultivate, we would say, free your soil from all stagnant waters to the depth of eighteen or twenty-four inches; loosen it to that depth, either at once or gradually, and there will be no difficulty, under a judicious course of cultivation, of producing on lands now of little value, all the most important products of agriculture.

TILE DRAINS.

A writer in the Country Gentleman, from Waterloo, N. Y., gives the following interesting information in regard to the discharge of water by tile drains:

"During the recent storm of rain and snow my attention was attracted to some of my tile drains running quite freely, and my curiosity being excited, I determined to find out how much water they were discharging, and give you the result of the investigation. So, with watch in one hand and a pint measure in the other, I started out. The drains were discharging through 4-inch horse shoe tile.—So, springing my watch, and putting the pint measure under the same instant, I was surprised to find it full in five seconds, or $1\frac{1}{2}$ gallons per minute, 90 gallons per hour, or 68 barrels and 18 gallons per day of 24 hours. Thinking, perhaps, this might be an exception, I went to other drains, with the same results—some even exceeding this. The field the experiment was made in is clay loam with a stiff clay subsoil; the drains are 40 feet apart and $3\frac{1}{2}$ feet deep; 8 in number. The size of the field is two acres. Location, upland, so that there is no drainage from neighboring fields on to it.

"Now let us see the amount this field is discharging: Eight drains, each discharging one pint of water in 5 seconds, or the whole field one gallon every 5 seconds, 12 gallons per minute, 720 gallons per hour, or 17,280 gallons, or 547 barrels of water every 24 hours during a storm or rain such as we have just been having. Farmers, look to this—make the experiment and satisfy yourselves of the benefits of through drainage. Instead of having to wait with your plowing and seeding until this large amount of water is evaporated, you can, by thoroughly draining your lands, make them fit for the plow within a few days after a heavy fall of rain, and save time—and 'time is money' now-a-days."

THE USE OF POTASH AND SAND.—No vines can produce fruit without potash. Dye woods and all color-giving plants owe their vivid dyes to potash. Leguminous plants all require potash. Without it we cannot have a mess of peas. Where it exists in a natural state in the soil, there we find leguminous plants growing wild, and in such places only we find wild grapes. All the cereals require potash, phosphate of magnesia and silica, which is dissolvable in solution of potash. It is this dissolved sand that forms the hard coat of the stalks, and gives them strength to stand up against the blasts of wind and rain while ripening. It is this substance that gives bamboos their strength, or the beards of grain blades of grass their cutting sharpness. No cereal ever came to perfection in a soil devoid of potash, silica, phosphate of lime, carbonic acid, and nitrogen.

Seeds—How Long will they Keep Good.

There is no general answer to the question, as seeds of different kinds, collected and preserved with equal care, will vary in the length of time they retain their powers of germination. Some seem to be good after an indefinite period, while others are not to be depended on after they are a year old. The seeds of some trees will not germinate at all if once allowed to dry, and others will only appear the second year after planting. Works upon horticulture are generally deficient in information upon the raising of seeds, and the length of time they may be safely kept. While it is safest to keep them at a uniform temperature just above freezing, there are many that will bear great extremes of heat and cold. Plants have been raised from seeds taken from raspberry jam which must have been exposed to a heat of 220 degrees. When buried in the earth, below the reach of these influences which induce germination, there seems to be no limit to the vitality of some seeds. Among plants commonly cultivated, the seeds of carrots, onions, parsnips, and salsify, are not to be relied upon when over a year old. Beets, spinach, lettuce, celery and parsley, will keep two or three years. Radishes, cabbages, and turnips, four or five years. Melons and cucumbers may be kept for ten or more years; old seeds of these are preferred by some gardeners, as the vines are said to be more prolific and less luxuriant than those from fresh ones. Good seed being heavier than water, will generally sink in it, but this is not applicable to those with a hairy or spongy seed-coat; such seeds will float even when sound. The only sure test is to try to sprout them in boxes or pots of earth. If they do not germinate there, they should be rejected.

TO DESTROY SORREL.—Lime sometimes has a tendency to destroy sorrel on some soils, but as a rule it has but little effect. *Deep cultivation*, and growing clover, buckwheat, or corn sown broadcast, especially the two latter crops, will, in nine times out of ten destroy it. It is not true, as some assert, that sorrel prevails in stony land only. It is to be found pretty much in every locality. We have it in our lawn, only two or three years made.

REMEDY AGAINST THE CUT WORM.—A correspondent of the Germantown Telegraph gives the following as a means of protecting corn from the cut-worm: When the corn has been up about a week, examine it; if it shows injury by the cut-worm, gather the *common mullein*, root and all, and place about every third or fourth row and hill top down, in the afternoon; in the morning following take a large tight basket and shake them off the mulleins into it, and feed them to the poultry.

"MONARCH,"



Taken from Life at 20 years of age—Owned by Lewis G. Morris, Mount Fordham, West Chester County, New York.

Monarch was bred at the Hampton Court Stud by His Majesty William IV., in 1833. He was got by Priam, out of Delphine by Whisker; Delphine was out of My Lady by Comus, and she out of The Colonel's dam by Depini; The Colonel's dam out of Tipple Cider by King Fergus, and she out of Sylvia by Young Marske out of Ferret by a brother of Silvio—Regulus—Lord Morton's Arabian—Mixbury—Mulso Bay Turk—Bay Bolton—Coneyskins—Hutton's Grey Barb—Byerly Turk—Burtler.—Nothing can be richer than this pedigree.

Monarch was imported by Col. W. Hampton, of Columbia, S. C., in the autumn of 1836. In 1840 the Editor of the "Spirit of the Times" gave an elaborate description of this fine Horse, from which the following is extracted:—"He is a rich satin-coated blood bay, with black legs, mane and tail, and no other white than a star. He is a horse of great bone and substance, and fully sixteen hands

under the standard. We never saw a horse that we preferred to him. He is remarkably fine tempered, ran on his courage, and had a nice idea of perpetual motion."

His performances are a matter of history. He came out in 1837, at 3 years old, at Columbia, S. C. He won the \$400 purse, two mile heats in 3:55-3:58. In 1838, at Augusta, Geo., he won the \$600 purse, 3 mile heats, in 6:25-6:26. Again, at same place, 20th Nov., won purse of \$700, 4 mile heats, in 8:07.—In Dec. following, at Augusta, Ga., won purse of \$1500, four mile heats, in 8:10-8:36.

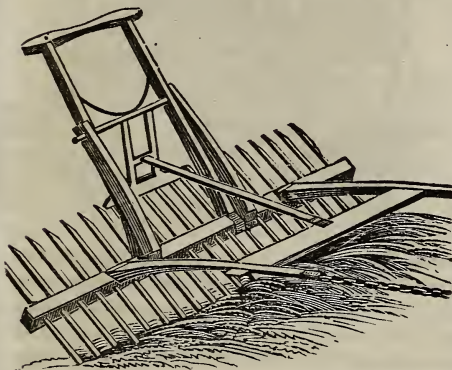
In 1839, Feb. 20th, at Charleston, S. C. he won the 4 mile purse of \$1000, in 8:07-8:55. On Saturday following, the 23d, over the same course, he galloped round for the Tattersall Whip, 4 miles, not having a competitor—he made the fourth mile easily in 1:48, carrying 111 lbs. After this race, Colonel Hampton refused \$20,000 for him.

Monarch is the sire of "Prophet" now offered to the breeders of the State by Philip Tabb, Esq., of Howard County—and who is really a magnificent animal. (See advertisement.)

FARM IMPLEMENTS & MACHINERY.

NO. FIVE.

REVOLVING HORSE RAKES.



This implement, so well known in many parts of the country, and in use for so many years, holds nearly the same relation to the common hand rake in saving labor as the plough and cultivator bear to the hand hoe. The amount of work it will perform with a single horse and driver may be easily estimated by any one, when it is stated that a strip of grass on the ground, ten feet wide, may be raked into winrows as fast as the horse can walk; that is, if the horse travels three miles an hour, more than three acres will be raked up in that time, or at the rate of twenty-four acres per day.

The only labor in unloading each rake full, is a slight lifting of the handles, which causes the teeth and handles to make a semi-revolution, and drop the grain without the least stopping or delay. The rapidity with which a large field of grass may be secured from a threatened storm is one of its great advantages. When in operation the teeth lie flat on the ground. They are made of the best of second growth white oak and white ash, and have no equal in strength, finish, or durability. The square teeth are most preferred, and are found to work easiest and most readily replaced when broken.

WHEEL HORSE RAKE.

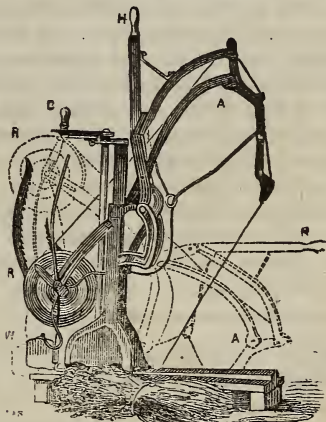


The Spring-tooth Wheel Rake is intended for hay

raking and gleaning grain fields. As a gleaner after the cradle or mower it will soon pay its cost.

Horse Rakes with metallic spring teeth, without wheels, have been long in use, and have answered a good purpose; and are still greatly esteemed by many of our farmers—but they require, as a matter of course, much more labor in operating, than with the wheel rake, as the most fastidious gentleman farmer can mount one, without the risk of wearying himself. The Wheel Rake passes lightly over the field and places the hay in winrows—it works well on rough or smooth ground. It is also admirably adapted for raking wheat, oats, or stubble, as it does not waste the grain, nor collect as much rubbish as the ordinary rake. It will rake more hay than twenty men can in the same time. There are several kinds of these rakes now in use, varying in construction—some being discharged of the grass by a lever, and others being self-discharging. They are all so simple and easy of management, that any boy who is capable of driving, can operate them with perfect ease.

BURSON'S AMERICAN GRAIN BINDER.



Only three motions are required to bind a sheaf with this Binder:

- 1st. To raise the handle (H).
 - 2d. When the gavel is brought up, shove the handle down.
 - 3d. To turn the crank (C) one revolution.
- It will thus be seen that it requires less skill to work the Binder than to use the ax or scythe, while the labor is pronounced by all who have used it, lighter than binding by hand.

We present to our readers a drawing of this noted machine, with a brief description of the same; and beg to call their special attention to it as an implement calculated, to so great an extent, to diminish the labor and expense of the harvest field, and destined, ere long, to be the constant companion to the Reaper. The binding of grain by machinery, though comparatively a new invention, is neverthe-

less attracting much attention, and promises at no distant day to take the place of hand binding, as the Reaper and Mower have superseded cutting by hand, in most sections of our country. The above illustration is the invention of W. W. & H. M. Burson, of Rockford, Illinois, and was first successfully tested, in their hands, in the harvest of 1860, since which time it has been so far perfected as to work for the last two harvests in the hands of farmers,—as much as 150 acres having been bound with a single binder in one harvest.

The Binder can be placed on the platform of any hand-raking or forking reaper, (most reaper platforms need extending for this purpose,) in such position as to enable the grain to be brought to it in good order, when the gavels are bound by one man as fast as the Reaper proceeds. The saving by its introduction is, therefore about the cost of four men daily—there is also a further saving in grain, as it is bound much cleaner than can be done when the grain is thrown in the stubble before it is bound.

The band material used is a small annealed wire, costing about 25 cents per acre, for average grain. These bands are run through the Thresher the same as straw bands, and four years experience has shown no injury to stock eating the straw. A little care in cutting the bands would keep them out, where the straw was intended for feed. It is represented as simple in construction and durable, and must speedily take a place among the indispensable farm implements—and supersede the whole family of self-rakers, however valuable they may be.

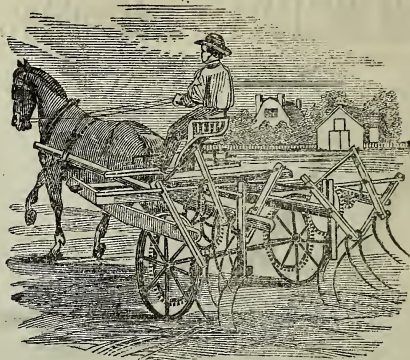
Any information desired in relation to this machine may be obtained by an examination of circulars at our Rooms, or by addressing Messrs. Burson, Rockford, Illinois.

SPRING TOOTH GLEANER.

The Spring Tooth Gleaner is a desirable machine for new, rough grounds, where it possesses advantages over those with wooden teeth. This rake requires more strength to be applied by the holder, and does not leave the hay in a condition so free from dust, &c., as other kinds; but by some farmers, in particular locations, it is preferred to any other rake. No farmer who has not used the Gleaner is aware of the amount that is lost, annually, by wheat left upon the ground in the harvest field—and until the introduction of the Gleaner, it was impossible to avoid this loss. This implement will perfectly save all the scattered wheat in the field.

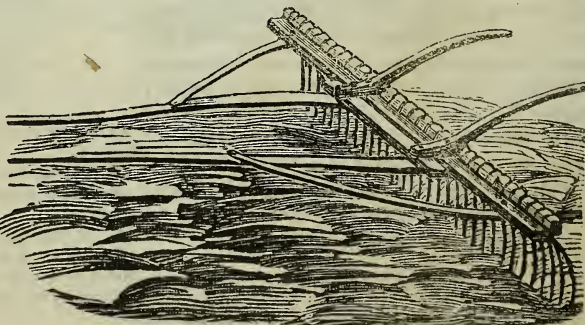
Words are but the froth of thoughts.

BULLARD'S PATENT HAY TEDDER.



Looking back a few years when our mowing was all done by the scythe, the swathes of grass, after laying one day, being spread out on the next by hand, then turned over again with the fork, raked into winrows, then put into cock ready for pitching into the wagon, from which by hand it was again pitched into the mows, the change at the present time seems remarkable. The whole process of the hay harvest, by the aid of the mowing machine, the wire tooth horse rake and the horse unloading fork, is now accomplished in less than one-half the time, with at least one-fourth of the labor, and performed in a more thorough and better manner.

The mowing machine, which spreads out the grass so evenly and lightly, that it is cured in fine weather without any thing more being necessary than to gather it with the horse rake, seemed to embrace all that was needed, but improvements still march on, and no one can answer the question—"what next?" The Hay Tedder, or machine for



making hay, worked by horse, is now offered to the public, and from the views given by some of the best practical farmers, we are inclined to believe this new improvement a useful and valuable one in grass regions.

The intention with the Hay Tedder, is to follow a couple hours after the mowing machine, and its

operation is to lift up the grass as it lays and throw it up so as to bring every spear into contact with the sun and air, lays it down again so loosely and softly that the air permeates through every part of it, performing the *curing process* thoroughly, so as to be ready for the mow the *same day* it is cut.

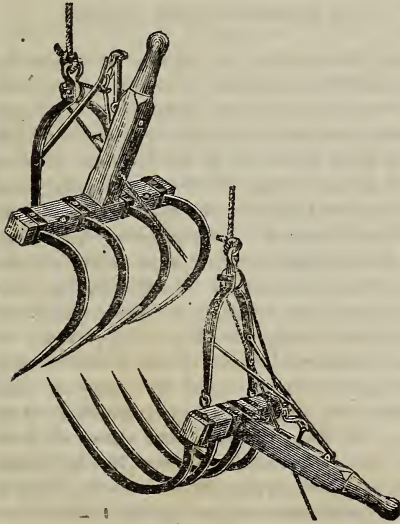
It is known that the nutritive properties of hay consist in starch, albumen, gum, sugar, wax, resin, woody fibre, &c.

It is contended, that after the tedding process, the hay is of more value than when these are all dried out and exhausted to a great extent, as in the ordinary way of curing, that the *improved quality* of the hay far more than pays for the expense of the Tedder, while the saving of *risk* from rain by its being ready to haul to the barn soon after it is cut and on the same day, is a very important advantage.

For further information relative to the Tedder apply to Silas C. Herring, New York city.

HORSE PITCHFORK.

No. 2.



No. 1.

1—Position when loaded.—2—When hay is discharged.

This Fork has been in practical use for over two years, and has met with a success unparalleled in the history of agricultural implements. It only needs a trial to convince the most skeptical. With the pullies furnished with the Fork it can be rigged to deposit the hay in any part of the mow by simply pulling a small cord. It is equally adapted for stacking. The handle being short is out of the way in going over or under beams, through shed windows, &c. The bale and brace being made of *wrought iron*, and the tines of *steel*, and *sickle shaped*, it is very strong and durable, and will hold as much as a horse can draw. The head of this Fork is pro-

tected by patent self-tightening bands, through which the tines pass, making it impossible to break. Although very strong, it is small and compact, and can be used by a boy. It will take off a load of hay ordinarily in three to six minutes.

These Forks can be procured of the agricultural dealers generally.

MUSCLE AND MACHINERY.

The great objection to farming hitherto has been hard work. Farm labor is done too much by hand. What manufacturer of the present day could succeed without machinery, and yet manufacturers were once without such aid. The human drudgery of the farm must be saved, if the farmer would rise physically and intellectually in his calling. Farmers cannot afford to be machines, when thinking powers rule the world. They must use machinery, and harness steam, wind, or horse power to their car. This last must ever be the most common motor of the farm, as it is within the reach of all. By horse-power the farmer can mow and reap, turn and pitch, thresh and grind, saw and bore, chop feed and crush roots. It is not profitable to farm it as those did who lived centuries ago. Labor is higher, taxes are steeper, and commercial values are rising. A better agriculture must arise than the past has known, or the farmer will go under. If our hills and valley ever become properly cultivated, the farmer has a great work to do. Leaks must be stopped, time must be economised, intellectual and social elevation must be achieved, farmer's clubs must be sustained, machinery must supersede muscle. To make any business tolerable it must be shown capable of yielding something besides health and bread, and that is about all farming has hitherto shown. Farming will become profitable when the farmer better understands himself and saves all the wastes.

Song—Spring o' the Year's Begun.

When the black-bird top o' the maple tree
Returns with his morning song;
When the sunny bank grows green again,
And the days grow bright and long;
When the robin comes to the orchard brown
And sings to the morning sun,
And the blue bird pipes, we know by the sign
That the Spring o' the Year's begun!

When the maple vows show faintly red,
And a change comes on the larch—
When the violet leaves begin to grow,
In the wakening winds of March—
When the sparrows come, and the brooks are full
And sparkle as they run—
When the tulips start, and the peach buds swell,
The Spring o' the Year's begun!

Live Stock Register.

CARE OF YOUNG STOCK.

BY C. N. BEMENT.

Nothing is more important to the successful rearing of stock, that the young animal should receive a good start in life, and it is idle to expect a profitable return from an animal which has been half starved and uncared for during the first few months of its existence.

When we look into a farm yard and see the young calves cringing and shivering in the corner, their legs drawn together under them as if they were huddling together for sympathy, their long, rusty, staring, lifeless looking hair standing at right angles with the body, their paunches stuffed with coarse and unwholesome or innutritious food until they are swelled to an enormous size, their eyes dull and dreamy and listless, and the whole general appearance impressing one vividly with the idea that there is indeed such a thing as a state of semi-existence, we do not require to be told that the owner is a poor man. Such management will make any man poor in a short time.

When in a state of nature, the calves are nourished during this period almost entirely by the milk of the dams, and there can be little doubt that when the health and growth of the calf is the principal object with the breeder, it should be allowed to run with the cow. But to most farmers, the milk is of too much value to permit this, and the calves must be artificially reared. When this is done the calf should not be taken from the cow until four or five weeks old. We are aware that many breeders advise taking the calf from the cow before it is allowed to suck, urging as a reason that the calf will much more readily be taught to drink if it is never allowed to get its food in the natural way. This may be true, but we have found very little trouble in teaching the calf to drink after it has been allowed to run with the dam two or three days, and there is a very important reason why this should be done.

The faeces that accumulate in the intestines during the latter months of the portal state are dense and adhesive, and avoiding the excrement is at first often attended with some difficulty. By a wise and admirable provision of nature, the first milk of the cow possesses certain laxative properties which materially assists in establishing the healthy action of the intestines, and it is very important that the milk should constitute the first food of the calf.

When the calf is first taken from its mother it should be removed as far as is convenient from her, that it may not be rendered unnecessarily restless

by her lowing. It should be fed entirely on new milk for a few days until it becomes accustomed to the change, when skimmed milk may be added, and can be gradually substituted for the new. The skimmed milk should be warmed. A lock of rowen or fine sweet hay should be within their reach, which they will begin to nibble when quite young.

As soon as the grass is well up, turn into a small pasture or paddock where the feed is good and provide shelter to which they can retire at pleasure.—Beware of practising a common but too fatal piece of false economy by putting them on a short allowance of milk. Do not attempt to wean them too soon. The young calf can no more subsist upon grass alone than the infant can live upon meat and vegetables. They should be fed milk at least three months. Four months would be still better. Never allow them to fall away, but keep them growing. The same will hold good with other animals, colts, pigs, etc.—*American Stock Journal*.

THE FAMOUS NEDJED HORSES.

At a late meeting of the Royal Geographical Society, Mr. Gifford Palgrave (who had been eighteen years from England) gave a narrative of his travels from Gaza, in Southern Syria, across North Central Arabia, to El Khatif, on the Persian Gulf, (passing by the capital of the Wahabite monarchy,) and thence to the kingdom of Oman, at the extreme east corner of Arabia. The part of the report which refers to the Nedjed breed of Arab horses is as follows: "Before leaving the Wahabite capital, however, he had been called in to doctor one of the Royal horses, which gave him an opportunity of seeing the renowned stables of the Wahabite king, where is, of course, to be seen the celebrated breed of Nedjed, the finest of all descriptions of Arab horses. Mr. Palgrave stated that almost all Arab horses now imported came from North Arabia, Egypt, or South Syria, and that such a thing as exporting a Nedjed steed was almost impossible.—They were chiefly a clear grey or light chesnut, (bay being a color that never occurred,) with occasionally white, black, and deep chesnut. Dapples, piebalds, skewbalds and roans were equally unknown, and the peculiar obliquity of the shoulder blade gave them an easy, springy motion which, combined with their splendid barrel, immense haunches, superbly set tail, delicate muzzle, and magnificent crest, made them the *beau ideal* of the horse, though rarely standing over fifteen hands—a horse of sixteen hands being utterly unknown."

A span of Patterson (N. J.) horses was sold last month to a Wall street broker for the snug sum of \$7000.

The French Turf—Encouragement by the Emperor.

We have often adverted to and dwelt upon the fact that the wisest and most powerful of the potentates and governments of Europe carefully and sedulously encourage the sports of the turf, as the great means of improvement in the general horse-stock of their dominions. We now perceive that that able man, the emperor of the French, has made several additions to the prizes he is to give in the coming year for this object. The chief of these is a prize of ten thousand francs, to be run for in a steeple-chase, at Vincennes. This handsome contribution was obtained by the efforts of Prince Joachim Murat, President of the Society of Steeple-Chases. The Municipality of Paris has here again determined to second the liberality and wisdom of the Emperor, by giving a prize of the same value, to be run for at the same time. There is one rule in the regulations of the Vincennes Society to which some exception has been taken. It requires that when two horses make a dead heat, and come in first, they shall divide the prize. This is said to be contrary to the fundamental rule of racing, that "there cannot be two winners of one prize." Now, it appears to us that there is more in the sound of this objection than in the sense of it. Why should not the two horses which have beaten the field, and come out equal as against each other, divide the prize. If they have run a good steeple-chase, with hunting weights up and severe fences and other jumps, they will not be in any condition to repeat the run, and the effort to do so may and probably will end in the death of many a good horse. Besides the steeple-chase prize, the Emperor gives some valuable new prizes to be run for over the flat. One is a cup worth 1200 francs and 500 francs in money, for officers' chargers to be ridden by officers and run for at the camp at Chalons. For the other military races at Rennes, Toulouse, Nancy, Moulins, Saumur and Strasburg, the Administration of the Haras gives at each an object of art worth 1200 francs, and 300 francs in gold. For these prizes the horses must have been bred in France, must be officers' chargers, and must be ridden by officers. The Emperor and the Administration of Haras also contribute to the races at Cherbourg. The Emperor gives a thousand francs, and the Administration two thousand. These facts speak eloquently, we think, as to the policy of encouraging the turf. The old idea which once prevailed, that racing institutions and the thorough-bred horse were of no service to the general stock of the country, is now pretty well exploded.—*Wilkes' Spirit*.

All in need of responsible agents for the settlement of Claims against the United States—Pensions, Bounties, &c. are referred to the announcement of Joseph E. Devitt & Co. Military and Naval Agency, 427 Walnut street, Phila.

Improvement of the Stock of Horses.

The *German town Telegraph*, speaking of an "Improvement of the Stock of Horses," says;

A correspondent has occasionally discussed in our columns the propriety and profit of propagating superior stock upon our farms, both in horses and cattle, showing that it costs no more care or feed to raise a superior than an inferior animal. The only difference is in the first cost, which is a matter of no consideration compared to the advanced price—sometimes two or three times the amount—which could be obtained for the common animal, to say nothing of the feeling of pride involved in the matter.

In our State, and especially in the eastern portion of it, there are thousands of excellent mares, which would produce from a well-chosen thorough-bred stallion, a class of animals peculiarly adapted to this region, embracing strength, action, beauty and docility—qualities which most assuredly ought to recommend themselves to every agriculturist who feels a pride in his occupation—an occupation which in its nobility has no equal on the face of the globe.

This is a question worthy the consideration of all farmers.

ARAB HORSES.—The much-vexed point as to the merits of English and Arab horses has just been tried again at Cairo. Ali-Pacha, who has the finest stud of Arabs in Egypt, maintained that no English horse could run against an Arab four miles. His Highness Halim Pacha offered to run Companion, a well known racer here against him for any sum he liked. The match was run from the first station on the Suez desert to Cairo. The English horse, which was bred by Lord Ribblesdale, won in a canter by more than half a mile. Such a crushing defeat has taken all courage out of the partisans of Arab horses. What astonished the natives most was, that Companion, beating his adversary by so great a distance, was perfectly fresh, and quite ready to turn around and run the distance over again, while the Arab was quite exhausted and blown.

LIVE STOCK IN FRANCE.—A Paris letter gives the following figures: It appears from official returns that there are, in round numbers, 3,000,000 horses in the 89 departments of France, 400,000 asses, 330,000 mules, 10,200,000 horned cattle, of which 300,000 are bulls, 2,000,000 oxen, 5,800,000 cows, 2,100,000 yearlings, 4,000,000 calves; 35,000,000 sheep and lambs, of which 26,000 are merinoes, or half breed; goats and kids, 1,400,000; hogs above one year old, 1,400,000; sucking pigs, 3,900,000.

Keep all tools under shelter, provide a place for everything and let everything be in its place.

THE MARYLAND FARMER & MECHANIC.

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PROJECTED EXPEDITION TO EASTERN ASIA.

Dr. MACGOWAN, of the United States Army, whose previous travels in Eastern Asia renders him thoroughly conversant with the condition of affairs in those countries, and with the valuable information upon agricultural arts and manufactures, which may thence be derived, is warmly advocating the appointment by Congress, of a Commission to be composed of scientific men and practical agriculturists, whose duty it shall be to explore the interesting region referred to, and to transmit home the results of their investigation. It is a rich and comparatively fresh field of adventure, and if generously supported by the United States Government could not fail to prove of essential benefit, not only to the commerce of this country, but also, to its manufactures and in an especial manner to agriculturists, inasmuch as China and Japan are, in many respects, far in advance of us in the mode of utilizing manures, and in the cultivation and propagation of fruits. We cordially recommend the project of Dr. Macgowan to the attention of Congress,

endorsed as it is by the following resolution emanating from the New York State Agricultural Society, and from the American Institute. We trust moreover, that Dr. Macgowan will be placed at the head of the proposed commission.

Resolved, That the Society regard as a subject of great importance to the industrial and agricultural interests of the United States, the project of Dr. D. J. Macgowan, U. S. A., for the appointment by the National Government, of a Commission composed of scientific men and practical agriculturists, to visit and explore Eastern Asia, with a view to acquire information bearing upon arts and manufactures there pursued, and to obtain and transmit seeds, plants, and animals, the cultivation and propagation of which would be likely to add to the valuable product of our farms—that it is likely to result in substantial benefit to every section of the country.

RECOMMENDATION BY THE AMERICAN INSTITUTE.

"The American Institute, which has for its object the advancement of commerce, agriculture, and the mechanic arts, earnestly recommends to the fostering care of our National Government, this expedition, as one, which can hardly fail to increase the number and variety of our agricultural products, will most likely add to the catalogue of new and useful minerals and animals, lead to the discovery of new and valuable fibrous textiles; give an impetus to our foreign commerce, and promote generally the cause of science and agriculture.

"Your petitioners, therefore, pray for the enactment of such laws, or the adoption of such resolutions as may secure to the proposed Commission of exploration, not only such aid as will be satisfactory to its enlightened projector, but at the same time, be creditable to a great and growing nation."

We regret to announce the death of THOMAS J. BEACH, for more than twenty years connected with the editorial department of the *Baltimore Sun*. In all the walks of life Mr. BEACH was distinguished for an unswerving probity, and always acted on conscientious convictions of right. As a fluent and forcible writer he had few superiors, and in times past contributed largely to the influence of the journal to which he was attached. He was in the 52nd year of his age, and leaves a wife and a large family of children, as well as hosts of personal friends, to mourn their loss.

AHEAD OF TIME.—From the *Chestertown News* we learn that Col. EDWARD WILKENS sent to Baltimore, on May 9th, the first pickings of Peaches and Strawberries of this season's growth. Both strawberries and peaches, says the *News*, were of large size and delicious flavor. We do not doubt their size and quality—but not having seen or tasted them cannot decide—but would take occasion to remind the Prince of Peach Growers in that section, that we are judges when such things are submitted to us for our decision.

Respect to the Memory of Hon. Charles B. Calvert.

At a meeting of the Executive Committee of the United States Agricultural Society, held at the rooms of the Society, at the Capitol, on Tuesday, May 17th, 1864—

The President of the Society, Hon. B. B. FRENCH, stated that he had called the meeting for the purpose of enabling those present to pay some proper testimony of respect to the memory of their late Vice President, of the State of Maryland, Hon. CHARLES B. CALVERT.

Mr. Calvert, the President said, had been recently suddenly removed from his labors amongst us, in the midst of his years and usefulness. We were called upon to mourn the loss of a good, a philanthropic, an energetic, and a most deserving gentleman—a man who did with all his might whatever his hands found to do.

Mr. Calvert was one of the formers of the United States Agricultural Society, and it had no more energetic friend and supporter than he was. Ever ardent and ever eloquent in the great cause of agriculture, he advocated most powerfully the establishment at the seat of government of a Department of Agriculture, and he lived to see such a department in successful operation, although not possessing those full powers of a department which he desired.—Through his influence and indomitable energy the Agricultural College of Maryland was established, and in his death it has lost one of its most worthy founders and ardent friends. As a member of the House of Representatives of the Thirty-Seventh Congress, Mr. Calvert proved himself a useful, business-like, and eloquent Representative.

A good man has departed from amongst us; let us cherish his virtues in our memories, and imitate them in our lives.

Hon. Isaac Newton, the Head of the Department of Agriculture, then offered the following resolutions which were read and unanimously adopted:

Resolved, That, while we sincerely mourn the loss of our late friend and co-laborer, the Hon. CHARLES B. CALVERT, Vice President of this Society, we submit with reverence to the degree of that All-wise Being who has seen fit to remove him from amongst us.

Resolved, That, in the death of Mr. Calvert, society has lost one of its noblest and most honorable ornaments; the nation a patriotic and able citizen; the United States Agricultural Society one of its best friends and most consistent and ardent supporters; and his family an indulgent, affectionate, and beloved husband and father.

Resolved, That as a mark of respect for the memory of our deceased friend, we will wear the usual badge of mourning for thirty days.

Resolved, That the newspapers of this city and the Agricultural press throughout the country be respectfully requested to publish these proceedings; and that the Secretary communicate a copy of them to the family of the deceased.

B. B. FRENCH, President U. S. Ag. Society.
BEN. PERLEY POORE, Secretary.

PLANTING SUMMER CROPS.

The following seasonable suggestions, in view of the apprehended short yield of crops in the West, we clip from *The Culturist*:

"Intelligence from the West assures us that the grain crops do not promise more than half an average yield. In view of this fact, the proper course for the prudent farmer is very clearly indicated.—Every means by which hay, corn, oats and other grain can be economized, should be adopted. Let there be as large breadth of land planted with corn as possible, and let our farmers, for once at least, try the value of a good crop of turnips. Carrots are as valuable, bushel for bushel, for horse feed, as oats. Why not give them a fair trial? Successive plantings of corn for soiling cattle will save many a ton of hay that can be turned to large profit during the coming fall and winter. Every available foot of land should be cultivated. The war in Denmark has cut off from England a supply of Prussian grain equal to four or five millions of bushels. The wheat market must consequently advance. With this fact before them, farmers are justified in turning up fallow fields, turning down old swards, and expending something for artificial fertilizers, if their own barn-yards do not furnish the requisite quantity of manure. In a word, farmers, it is your interest, as it is your duty, to make every foot of land yield something that will add to your profits.

ARRIVAL OF "ADMIRAL."—We learn that Mr. John Merryman, of Hayfields, has just received the fine young Hereford bull "Admiral," bred by and purchased from Frederick W. Stone, Esq., of Mors-ton Lodge, Guelph, Canada West. Admiral is red, with white face; calved January 25th, 1863, by Patriot (2150) out of Gentle, by Carlise (923).—Patriot and Gentle were both bred by Lord Bate-man, and imported by Mr. Stone.

CORRECTION.—The article in May No. on "Capital Invested in Reapers and Mowers," contained an error, through carelessness, which did injustice to "Kirby's" Machine.—On the 17th line of the table giving the number of Reapers & Mowers manufactured by the several builders, it should have been "Kirby, Auburn, N. York, 1000 Mowers and 3000 Reapers," instead of the inverted comas.

The grass harvest being close at hand, our farmers will be in need of Hay Forks, with this view Palmer & Wackerhagen, of New York, offer their Excelsior Horse Pitchfork, which is really a superior implement, and no farmer should be without one for the grass harvest. They can be procured of most of our Agricultural Implement dealers, who doubtless are willing to sell off their entire stock simply to accommodate the public. Examine the Fork.

Those who need the services of a thorough-bred Horse, are referred to the advertisement of "Prophet," Howard county. He is of the purest strain.

EUROPEAN AND AMERICAN MARKETS.

We have received from Hon. Isaac Newton, Commissioner of the Agricultural Bureau, the Bi-monthly Report of that Department for March and April, which comprises a very interesting report from the Commissioner; also Annual Agricultural Statistics, Meteorological Report from the Smithsonian Institute, &c. From the Annual Agricultural Statistics copy the following:

In order that our farmers may see the state of the markets, we shall, from time to time, give the prices of the leading agricultural products usually exported. They are not given so much to show the latest prices, as a guide by which the farmer should effect sales, but to familiarize him with those matters which, in times of better foreign demand, he should not overlook.

The general condition of all the European markets for grains is a most decided dullness, and the latest accounts represent them as drooping. The Danish war has too remote a probability of becoming a general European war to give the slightest activity to the markets.

WHEAT.—England.—The average price of wheat at 42 places in Great Britain was 40 shillings and 1 penny per quarter of 480 pounds. Estimating the shilling at 24 cents, this price per American bushel of 60 pounds would be \$1 20. But American red and white winter wheat ranged at about \$1 32 to \$1 42 at London; and at Liverpool, at \$1 30 to \$1 65.

At San Francisco it was \$2 25 to \$2 40 per bushel, having advanced recently from 30 cents to 45 cents per bushel on account of the severe drought noticed more fully in our article on California.

At New York it was ranging from \$1 70 to \$1 86, currency value, being in gold value, by which it must be compared with English prices, at about \$1 13 to \$1 23, ascertained by estimating the discount of difference between gold and currency at about one-third.

Freight of wheat to Liverpool from New York was from 3 to 6 cents per bushel, and to London 10 cents. Making allowance for the rates of exchange, insurance, drayage, commissions, &c., it will be seen that the exportation of wheat affords but little profit at this time.

FLOUR.—In London the best article was worth about 3 cents per pound, and American flour in barrels ranged from 4 32 to \$6; in Liverpool, from \$4 80 to \$5 28 and \$6 24.

In New York, from \$6 65 to \$8 30 per barrel, currency value; in gold, from \$4 43 to \$5 53; in San Francisco, \$4 50 to \$7.

Freight to Liverpool, from New York, was 24 cents per barrel, and to London 36 cents.

INDIAN CORN.—At Liverpool, corn was selling at from 78 to 89 cents per bushel of 56 pounds. In New York, from \$1 28 to \$1 30 in currency, equal to 85½ and 86½ cents in gold. At San Francisco it was \$2 25 per bushel.

PROVISIONS.—In London, new American butter was selling at 21 cents per pound; lard, in casks, at 11½ cents per pound; pork, per barrel, \$21 60; beef, per barrel, \$23 52 to \$26 88.

At New York, western and Ohio butter from 28 to 38 cents per pound, and State from 40 to 44; cheese, from 16 to 18 cents; lard, 13 to 13½ cents; pork, prime, from \$19 50 to \$21 per barrel, and

from \$22 50 to \$25 25 for mess; beef, prime, from \$7 50 to \$9 for country mess, and from \$16 to \$19 for extra mess. These are currency rates; gold values would be about one-third less.

USEFUL RECIPES.

VERMIN ON CATTLE.—As the period is at hand when colts and cattle are subjected to the attacks of vermin, it may be serviceable to some to print a handy and speedy remedy, which is simply *greasing* the parts affected, and rubbing it in thoroughly.—Grease (say linseed oil, lard, &c.) penetrates the enemy, and destroys it in short order. Unless the skin of the animal be well rubbed and manipulated, the work will be only half done. Tobacco water is an injurious application, and should never be used as a wash upon cattle.—*Ger. Tel.*

TO PREVENT A HORSE FROM PULLING AT THE HALTER.—Tie a rope around the neck, put it thro' a hole in the edge of the manger, and tie it around the fore leg below the knee, and when the horse pulls, the rope will slip through the hole and pull up the fore leg, and he will soon give it up.

HIDE-BOUND HORSES.—Hide-bound horses are soon brought into good condition by carefully grooming, a handful of hickory ashes and salt every third day, and yellow poplar poles or brush placed within their reach so they can have access to the bark at their pleasure.

FOOT ROT IN SHEEP.—The Irish Gazette gives the following simple remedy: Pare the foot, removing all the jagged and loose bits of horn and anoint it with butyr of antimony. Repeat it every second or third day, according as the feet are more or less bad.

BLOAT IN CATTLE.—The best, most effective and least dangerous remedy, is to fasten the animal and carefully and repeatedly pull out the tongue, letting the animal draw it back. It may be necessary to draw it back. But by repeatedly and persistently working it, the bloat will be pumped out, and the animal will recover. Have never known this to fail. And the remedy is always available.—*Foster, Newark, N. Y.*

TO CURE HARNESS GALLS.—A Rural New Yorker correspondent writes: "Take dry white lead, have it fine, put a little in a paper in your pocket, and when you stop your team, or several times during the day, put a little of it on the galled place. They will soon heal."

CURE FOR RING-BONE.—A correspondent of the New Yorker, writes that he had a bad case of ring-bone of three years' standing, on which he used the Oil of Spike freely, rubbing it well with his finger twice a day for one week, with no apparent benefit at the time. But soon after the lameness disappeared, and has never returned, although the callous remained.

Horticultural.

THE SMALL FRUITS.

We have been requested to say something concerning the small fruits. It is now regarded as good evidence that a farmer has not "travelled" if he neglects or ignores small fruit culture—if there are no strawberries on the table, except such as SARAH JANE, her mother, and the little boys glean from the meadows—if his currants are borne on a hedge-grow of superannuated bushes that have grown and renewed themselves and caused wry faces a quarter or half a century, without having received either manure or culture—if he drives, after haying, five to fifteen miles to some "girdling," with his own and his neighbors children in their old calico gowns and worn out clothing, with baskets and pails to gather blackberries by the bushel, content with the pies and dried fruit one such trip in a season will secure—if for raspberries, his children and women folks are compelled to wander from field to field along fences, and from stump to stump, where the birds have sown the seed, and gather them from isolated bushes—we say if farmers are found who continue this ancient mode of gathering gratification from small fruits, they are not supposed to have "travelled" far, nor kept up with the world as it moves.

The strawberry plantation, the currant and gooseberry fields, the raspberry and blackberry patches, belong to all well cultivated and well conducted farms. We do not wish to be understood as saying that a farm may not be well cultivated without them; but we do wish to impress the fact that it cannot be well conducted if no regard is had to the health and rational enjoyment which these fruits yield, where they are supplied to the farmer's family regularly and fresh from vines and bushes, in such quantities as may be daily consumed.

We speak now with reference to family wants.—But we might refer to the profit resulting to him the culture of all these fruits when the farm is located near or on a line of railway within 12 hours steaming of a market.

Whether for the family or the market, small fruits will repay systematic care and culture. For well directed care furnishes a larger supply of a better quality of fruit from a smaller area, than can otherwise be obtained. And no small fruit culture will pay which does not secure the best possible quality and greatest quantity of fruit in the best shape. No one should undertake small fruit culture for market who does not intend to excel in every respect, and who has not the ability, at least, to equal the best in the shape in which he exhibits it in market.—

In this respect there is much to be learned by fruit growers. It is no advantage to a man to assert in a public place, that his products are inferior to his neighbors—that he is less skillful in culture and less particular in their preparation for market. And yet this is precisely what the fruit producer does say when he sends to the market fruit of an inferior quality, put up in inconvenient and ungainly packages.

We take it for granted that many of our readers who are asking for information on this subject of small fruit culture, are proposing to enter the business for profit. If so, no pains should be spared to secure the following results:—The variety for culture should be selected best adapted to your locality, and which is also the greatest favorite in your market—the fruit which combines the most good qualities—productiveness, with the least labor, size and quality combined, attractiveness as a fruit aside from quality, and which may be put in the market with the least damage. One other qualification is essential:—You must select soils with a view to get your product in the market at the season when it will bring the largest price. In some markets the earliest varieties do not bring as large a return as the very latest. So carefully is this feature of fruit marketing studied by experienced culturists, that the season for each of the small fruits has been largely extended, aided by a difference in latitude. But this extension of the season with the same fruit is due, not only to difference in latitude and isothermal locations, but to the care with which large cultivators have selected varieties with a view to secure a succession, and not only prolong the season, but the better enable them to control the market, divide their labor and save themselves from loss by being forced to put their crop all in the market at once. It is not good policy to cultivate a larger crop than can be handled successfully and secure remunerative prices; and it is especially poor policy to risk all the labor and expense of the season upon a single kind of fruit. A mixed husbandry is as much safer and more profitable to the fruit culturist as to the grain grower. The strawberry crop may be destroyed by drouth; and yet the raspberry crop, which follows it, compensate all loss on the strawberries. Early currants and gooseberries bring good prices in large markets when delivered in good shape.—And blackberries! Did anybody ever know a good, large, well grown, well ripened New Rochelle, or a Dorchester, to spoil when exposed for sale at prices that would pay the producer four or five dollars per bushel? We never did. And then there are other natives in the woods that repay culture and are not excelled. And it should be written in your notebook, sir, as a memorandum, that you, or your wife, or children, are to carefully mark and note

the wild bushes that grow the largest and best berries, for transplanting and cultivation—and if extra, for propagation. In this way excellent varieties have been found, in some localities, which have proved valuable for market culture.—*Rural New Yorker.*

CULTIVATING ORCHARDS.

At a recent meeting of an Agricultural Club in New York, a communication was read from Isaac Eyre, of Middletown, Bucks county, relative to the cultivation and treatment of orchards. The subject is reported in one of our exchanges, with comments by the agricultural reporter. Mr. Eyre gives his views as below :

"Many farmers in this section of Pennsylvania farm their orchards regularly with their other land, giving them no more (if as much) manure; they get but poor crops of grain, and not many apples; but they seem to think they cannot afford to do without cropping them.

"I think I cannot afford to crop mine. Which of us is right? (1)

"My young orchard I work regularly and manure heavily. Do I do it rightly? (2)

"My orchard of winter apples is in the prime of bearing, and I should like to know how to keep it so for a number of years yet. (3)

"About one year ago I gave it a coat of barnyard manure, and I have gathered a valuable crop of apples this fall. (4)

"But I have no manure to spare to put on it, I wish to know whether it would do to give it a coat of lime." (5)

(1 and 2.) You are exactly right.

(3) Pursue the same course, and your orchard will be good for one of your grandchildren.

(4) And cannot your neighbours see from yours, how they could also get valuable crops from their orchards? There is one crop that you may grow in an orchard. It is clover. Grow it and graze hogs or sheep, or plow it under.

(5) Give it 30 bushels per acre, and sow clover-seed.

WM. S. CARPENTER.—I would let the clover grow but one or two years without plowing.

PROF. MAPES.—One of the benefits of a clover crop on orchard land is its action as a mulch. Any kind of mulching will be found favorable to fruit trees, and clover is the easiest and best, probably, if not allowed to be grown and fed off or carried off, so as to make it an exhausting crop to the land. I would recommend that plaster or wood ashes always be used upon a clover crop in an orchard.

DR. TRIMBLE.—I have lately been in a very healthy old orchard, where cattle and hogs are pastured. I would plow a young orchard frequently, but not an old one.

STRAWBERRY BEDS.

When the season for this fruit is over, the first thing to be done is to spade up alternate strips and to weed out the plants. A good way to do this is to take a board, fourteen to sixteen inches wide, lay it on the edge of the bed, covering the first strip of plants that are to be retained; at the edge of this, turn under two widths of the spade, cutting down close to the edge of the board with the spade, so as to make the lines straight and workmanlike. When this is complete, lay the board on the next strip of plants, and in this way until the whole is completed. In the next place take a steel rake and thoroughly pulverize and rake smooth the spaded slips, and take all the weeds out from among the old plants. This is all the culture we give our beds up to this time. We never disturb them after the spring opens, until the fruit is ripe, when it is gathered. The weeding of the beds we think injurious to the growing plant. It is seldom that we need to dress over the beds, as the plants take such a possession of the soil that the weeds have little chance to make a lodgment. White clover, blue grass and sorrel are the worst enemies to contend with. After the ground is frozen in the winter a light covering of litter with some well rotted manure completes the season's work. Thus reader you have our secret of strawberry culture, by which we always have a very abundant supply of this delicious and health-giving fruit.

The whole process is simple, and easy to be performed, and will not make the fruit on the vines cost over fifty cents a bushel. The picking is worth two and a half to three cents a quart additional.—This makes the total cost less than six cents a quart, leaving a very fair profit to such of the junior members of the farmer's family who have the enterprise and good taste to attend to it.

We are surprised as year after year rolls on, that the farmers' tables are not better supplied with this fruit in its season. The mystery that was supposed to surround the culture of the strawberry is now dispelled, and the process so simple that failure is out of the question. Of course the quantity and quality will vary according to the season, but of failure there need be no apprehension. The best time to set out new beds is in May, but it can be done during a wet time in July and August. But these new beds must be well protected by a covering of straw or other coarse litter.

If you wish to procure copies of those beautifully Colored Fruit Plates, drawn and colored from nature, but almost excelling, if possible, nature itself—you are referred to D. M. Dewey, agent, Horticultural Bookseller, Rochester, N. Y. We have a series at our Rooms, which can be examined by lovers of the beautiful. He also offers Phin's Open Air Grape Culture, new and complete—400 pages—see advertisements.

Cement for Wounded Trees.

Take of air-slacked lime, three parts; linseed oil, three parts; common cow dung, three parts; black pitch, two parts. Mix the first three ingredients thoroughly together with a spatula, and add the pitch after it has been fluidified and heated over a good fire. If the cement is too thick to be applied with a brush, it may be thinned to the requisite consistency by adding more pitch, or a sufficiency of linseed oil and spirits of turpentine, in equal portions. When large limbs are removed, a coating of this applied to the stumps, will prevent rot, and promote the healing of the wound. Decay in the trunks of apple and other trees, may be speedily and effectually arrested, by cutting away the diseased parts, and filling in the cavity with this cement, properly thickened for the purpose, with an additional quantity of the first four ingredients in their proper relative proportions.

ON THE SOWING OF FLOWER SEEDS.

In order to be successful in raising flowers from seeds, it will be necessary to bear in mind that the smaller the seed the less deeply should it be covered with earth. Some seeds are so small that they require only to be sprinkled over the ground and gently pressed into the soil, and should the weather prove very dry, a thin layer of damp moss ought to be placed over them till they germinate, when care must be taken to have it removed. There are few seeds that require such extreme attention.

Small seeds, as Petunia, Portulaca, &c., sow about one-eighth of an inch in depth; those of larger size, as Mignonette, Sweet Alyssum, &c., about one quarter of an inch in depth; still larger, as Balsam, Morning Glory, &c., three quarters of an inch in depth; and seeds of the largest size, as Nasturtium, Lupine, &c., fully one inch in depth. They must be covered with finely pulverized soil, or leaf mould slightly pressed down, and should be kept moderately moist by shading or slight sprinkling of water, until they make their appearance. When about one inch in height the plants must be thinned out from one to two inches apart, to prevent crowding. Tall varieties should be neatly staked to prevent injury from wind or rain.

GARDENING IN DENMARK.—Graves' recent "Cruise in the Baltic," tells us: "In Copenhagen every window is filled with pretty flower-pots, in which Roses, Pinks, and Fuchsias seem to thrive to perfection. These beautiful plants give a neat effect to the fronts of the houses, and tell the passing stranger of the deeply-rooted love of flowers which forms part of the national character of the Danes, as well as the Swedes."

Hints on the Culture of Flowers.

A light, mellow soil, not inclined to bake, and tolerably fertile, is best adapted to annuals. At any rate, the soil must be made fine and mellow before sowing the seeds. As a general thing, flower seeds are small, and require but a slight covering.

As a rule, all seeds should be covered in proportion to their size—the coarser they are, the deeper should they be covered. It would be well to sift the soil through a fine sieve that is to cover small flower seeds.

The following list contains a large share of the best annuals and perennials which bloom the first year; Sweet Alyssum, Improved French and German Asters, Globe Amaranthus, Cockscorn, Chinese Pink, Cyprus Vine, Candytuft, Centranthus, Beautiful Clarkia, Swan River Daisy, Eschscholtzia, Forget-Me-Not, Gillia, Immortelle, Swan River Immortelle, Mixed Larkspurs, Dwarf Blue Larkspurs, Fine Mixed Lupens, Large Flowering Malope, Double French Marigold, Dwarf Morning Glory, Mixed Portulacca, Phlox Drummondii, French and German Poppies, Mixed Petunias, Sweet Pea, Tassal Flower, Whittavia, Zinnia (elegans).

Most flower seeds are some time in coming up, and could be forwarded by soaking in tepid water.

Farmers should not consider the time and space devoted to flowers thrown away, as they minister to a higher want in man than the vegetable, and therefore are in the highest sense *more useful*.

VERBENAS.

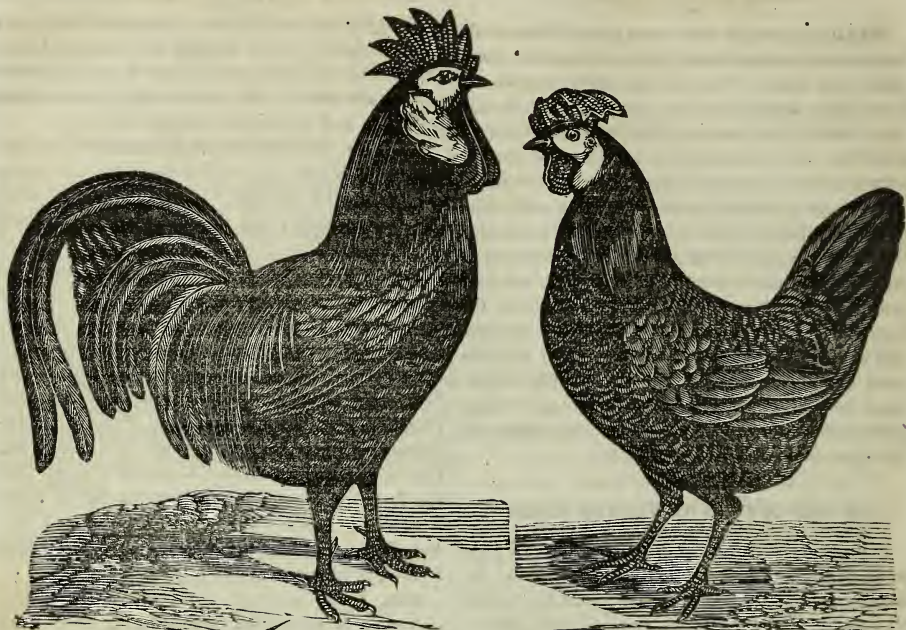
This, the prince of bedders, everybody who has a garden should have. Of endless varieties, of almost all shades of color, many strongly fragrant, they are universally grown in the old world and the new. An ordinary garden soil will grow them. The only favor they ask is fresh, new ground. In this, if allowed *plenty of room*, they will flower from the first planting out until early winter frosts.

Amongst the hundreds now named in catalogues at home and abroad, there are not twenty sorts notable for perfection of habit, flower, color, and profusion of bloom. Small plants of a few inches in height are more certain to grow close to the ground than large plants.

The following are choice standard varieties and the most serviceable:

Whites.—Snowflake and White Perfection. *Blue*.—Turquoise and Azurea. *Striped*.—Mœnitta Coccinea, and Madame Janvier. *Scarlet*.—Fox Hunter, Mrs. Woodruff, and Illuminator. *Crimsons*.—Crimson Perfection, Giant of the Battle, and Brilliant de Vaise. *Rose and Pink*.—Celestial, Pompadour, and Rosy Morn. *Dark Purple with White Eye*.—Royalist, Grand Turk and Warrior.

BLACK SPANISH FOWLS.

*The Poultry House.*

The Spanish Fowl is the "gentleman's fowl" of England, where it is bred with great care. Its form is rather tall and symmetrical; its plumage a deep shiny black; legs, a bluish slate. Its distinguishing characteristic is its pure white face; which, with its large single serrated comb, and long, red, pendent wattles, make it a most attractive and ornamental fowl. The hens lay very large, pure white eggs, weighing from two and a half to three and a half ounces, and will lay more weight of eggs annually than any other fowl; while it is very rare for one to show any inclination to sit. Their weight is from five to seven pounds. They are sprightly, active, and stately in appearance, and bear confinement remarkably well. The chickens, which must be hatched under other hens, are hardy, easily raised, mature early, and commence laying when quite young. Though the plumage is black, the skin is white and flesh tender, of about medium quality.

FOWLS AND FOWL HOUSES.

There are some excellent hints in the following article; but our experience with the Black Spanish fowls is not wholly favorable. They are free layers, but make bad mothers. After all is said in regard to breeds of fowls we believe the Dorking is the best.—*Eds. Farmer.*

The question is often asked, whether a large num-

ber of fowls can be kept in one house with profit. Many find a few fowls profitable, but, when they attempt to keep a large number, disease and vermin soon appear among the flocks, and the enterprise is abandoned. In nine cases out of ten, those who have endeavored to make poultry keeping a large and profitable business, have been unsuccessful.—We have before expressed the opinion that this was not a necessary result, but caused solely by inattention to the wants of the fowls, and especially by neglect of cleanliness. A few birds may care for themselves, and do tolerably well, but a large flock requires strict attention; their yards, houses and nests must be kept scrupulously clean, and abundance of suitable food and pure water furnished at all times. The greater the number kept, and the smaller the space occupied, the greater the necessity for cleanliness; and ventilation is a matter that can not be neglected with impunity. W. H. Herrick, of Oswego, keeps a large number of fowls confined in a small house and yard, and yet in perfect health. We have often heard of his success, and awaited a favorable opportunity to take a look at his fowl operations; but Mr. Herrick has furnished the *Country Gentleman* with a plan of his house, yard, and other arrangements for the comfort of his flock; and also his system of feeding, cleaning, &c., which we copy:

I keep from 100 to 200 fowls, mostly of the Black Spanish breed, and keep them confined the year round, but disease is not known among them, and

I can assure you that they do full as well as those kept by others, who believe that a fowl cannot do well, unless they are *kept scratching*. My yard is only 25 by 60 feet, filled 12 inches deep with leached ashes and fine sand. I have a large box containing some 30 bushels of burnt oyster shells and bones, which the fowls have free access to, and, when the top becomes too dirty, I take it off and put it around my grape vines. My gardener raises 600 heads of cabbages annually, which is fed them through the winter, and in summer he gives them lettuce, all they want. I have a contract for ten beef heads weekly, and give them plenty of sour milk, in addition to all of which they have *free access* to a mixture of corn, oats, wheat and barley, which is kept in a bin holding some 40 bushels, so constructed as to regulate itself, and not allow the fowls to waste a grain, or scratch in it. My watering trough is also so constructed as only to admit the heads of the fowls, and is always full of pure, clean water, which is of more importance than anything else in keeping poultry healthy.

A barrel of lime, a bucket, and a brush, are indispensable articles in a poultry house, and should be used every rainy day (and oftener during such a drouth as we have had lately,) whitewashing everything but the floor, and using the lime *dust* on that; but *wash the floor* first. I have tried all your vermin preventives, and everybody else's, but never succeeded in keeping my fowls free, until I found a remedy by experimenting.

The nests are so constructed as to be all taken apart in two minutes; they are perfectly smooth inside and out, and about once in every two months I have them taken down, cleanly washed, and then thoroughly coated with *common whale oil*, and I have never yet seen a single *louse* near them, nor can one be found around my premises. The oil we apply with a common brush, and it can be relied on as being a *sure preventive against vermin on fowls*.

The variety of fowls best for the poulterer to keep for profit is a matter of some importance, and, at this time, we can investigate the subject without excitement or prejudice, and perhaps without any danger of treading upon the toes of any dealer in fancy fowls. Whatever breed is selected, the keeper will find it to his interest to kill all over two or three years of age at the farthest; for we have always found that old hens produce fewer eggs, want to sit more frequently, and are more difficult to "break up."—*Rural New Yorker*.

Dr. Bradford, State Inspector of Guano, submits the past year's work of his office. It will be perceived, that in consequence of the removal of the Agency from this city, and other causes, that the labors of the Dr. have been light.

A few thorough-bred Improved New Oxfordshire Buck Lambs, also grade Shropshire Downs, are offered for sale by Wm. Henry DeCourcy, Cheston, Queen Ann's Co.

Grape Culture.

HOW TO BUILD A CHEAP VINERY.

BY DR. NORRIS, WILMINGTON, DEL.

A vinery may be lean-to or span-roofed, of any length, and may be built of wood, brick, or stone, although, when the latter is abundant, we think it most desirable. Suppose a moderate sized house to be required, say a lean-to 50 by 13. Twelve feet for the back wall and three for the front will be suitable heights. Foundations at least three feet below the surface, and the largest stones in the bottom. The front wall should only be one foot of stone above the surface, the other two feet being made up of glass sash hung on hinges to the front wall plate frame. Iron rods should be built in front and back walls to secure the wall plates firmly.—The mason work may generally be done by the perch. Seventy cents a perch is the working rate, the employer finding sand and lime. The carpenter work can be done cheapest by contract, and for a house of the above dimensions should not be over seventy-five dollars, the contractor finding the lumber. This includes a door in one end, and a run of movable sash hung to the back wall plates to open and shut at pleasure for ventilation.

A good trellis may be made by building in and firmly bracing in each end wall an iron bar perforated with holes, through which the wires may pass. Slight iron supports in the rafters are used to steady the wire. This form of trellis will present an equal stress on both sides of the house, and prevent any disposition to swag.

Borders may be made all inside, partly inside, and partly outside, or all outside. Entire inside borders are well adapted to forcing houses. For cold vineries, where no forcing is done, partly inside and partly outside are most in favor. The entire border outside, with vines planted out and not inside, would seem only adapted to our southern latitudes. Whichever way the border is made, good drainage is indispensable. Three feet of soil to be removed and carted off, except the top spit. At the bottom all the old spalls from the building, brick bats, and small stones come well in play.—They should be so arranged as to have a gentle descent from the back wall of the vinery. A good compost to fill up should be prepared some time previous to erecting the house, by getting old sods from a rich pasture, and suffering them to lie inverted in a heap, among which is sprinkled well-decomposed stable manure, wood ashes, bone dust, leaf mould, sand, etc., and giving the whole pile an occasional turning. Now, on top of your drainage place a row of inverted sods, then fill up from your

compost heap. When the vines are planted, have at hand a barrow of leaf mould, with which to surround the fine fibrous roots.

No grapery should be without a heating apparatus. Although some of the finest specimens have been produced without any fire heat, yet there is too much risk; and the cost of a heater may be made so small, that no one building a grapery will begrudge it. Hot water apparatus is the best, but most costly, besides requiring a fireman to manage. The old-fashioned brick flue is as good as any, although an air-tight stove will answer very well in a small house.

The unsightliness of the flue may be remedied by putting it entirely beneath the ground, directly under the walk if liked. The old Black Hamburg should be the main dependance in the cold vinery. It will bear more exposure than almost any of the other foreigners. A vine or two of the Frontignans will not be out of place. They will mature considerably earlier than the Hamburgs. For late varieties, select West Saint Peter's. The Barbarossa, although prominent among the late keeping varieties, is said to require a longer period to mature its fruit than obtainable without an earlier start than a house without artificial heat will get. A vine of the Muscat of Alexandria may, with propriety, be introduced, although requiring more artificial heat than the other varieties to bring it to the highest perfection. It is later than the Hamburg, and an excellent keeper.—*The Horticulturist*.

JUNE, gorgeous with flowers, green fields and full robed forests, is a month of natures rejoicing. The skies are soft, the winds zephyr like and nature appears to be hushed in repose. No longer the chill winds of spring drive us indoors—no fires are needed in the dewy morn, the sun pours its first floods of light over the dew glittering fields, whose green vegetation is making rapid growth. The bob-o-link is singing in the meadow, and from the throats of thousands of birds come pleasant music. Could we spare June from the calendar? By no means. For the roses are then brightest, the skies are more bland, the fields have the deepest green, the wind is hushed, unless chased into madness by some tornado, and all nature is robed in smiles—we cannot spare June.

CONSTANT, clean and mellow cultivation is absolutely necessary at all times for the successful growth of the peach tree; it is as necessary for a young plum tree, but not quite so much so for an old one; it is nearly as essential for a young apple tree, but much less so for an old orchard; and still less necessary for a middle-aged cherry tree.

The Dairy.

TEN RULES FOR MAKING BUTTER.

In making good butter, there are several nice operations to be gone through with which require an eye to cleanliness, forethought, and some little experience.

1. On milking clean, fast, yet gently, regularly twice a day, depends the success of the dairyman. Bad milkers should not be tolerated in a herd, better pay double price for good ones.

2. Straining is quite simple, but it should be borne in mind that two pans, about half full each, will produce a greater amount of cream than the same milk in but one pan; the reason of this is the greater surface.

3. Scalding is quite an important feature in the way of making butter in cool weather; the cream rises much quicker, the milk keeps much longer, the butter is of a better color, and churns in one half the time.

4. Skimming should always be done before the milk becomes loppered; otherwise much of the cream turns into whey and is lost.

5. Churning, whether by hand or otherwise, should occupy forty or fifty minutes.

6. Washing in cold soft water is one of its preserving qualities, and should be continued until it shows no color of the milk by the use of the ladle. Very hard water is highly charged with lime, and must in a measure impart to it alkaline properties.

7. Salting is necessarily done with the best kind of ground salt; the quantity varies according to the state it is taken from the churn—if soft, more; if hard, less; always taking the taste for the surest guide.

8. First working, after about twenty-four hours, is for the purpose of giving it greater compactness.

9. Second working takes place at time of packing, and when the butter has dissolved the salt, that the brine may be worked out.

10. Packing is done with the hands or with a butter mall; and when butter is put into wooden vessels, they should be soaked two or three days in strong brine before using. After each packing cover the butter with a wet cloth, and put a layer of salt upon it; in this way the salt can easily be removed at any time by simply taking hold of the edges of the cloth.

Butter made in this way will keep any length of time required.

Castor Oil is said to be the best application that can be made to new boots to render them water proof.

The Florist.

FLORICULTURE—June, 1864.

Communicated for the "MARYLAND FARMER," by W. D. BRACKENRIDGE, Florist and Nurseryman, Govanstown, Baltimore County, Md.

We would recommend that all plants in the Green-house and Conservatory of a woody nature and now done blooming, be removed without delay to a cool shady place in the open air, plunging the pots about two-thirds up to the brim in sand or coal ashes; the latter is the best. In the performance of this work, observe to place the plants thinly, in beds or groups, laid out in some definite sort of order, giving stakes to all such as require, and heading back with the knife those that have assumed a straggling habit; for nothing presents a more unsightly appearance, or is more suggestive of bad management, than a mass of various kinds of plants crowded together without regard to size and kind; and in order that each individual may receive the necessary quantity of water, the succulent and soft wooded kinds had better be placed in groups by themselves, apart from the more hard-wooded sorts. The above designated plants having been moved out, will give ample place for the proper display of Pelargoniums, Fuchsias, Achimenes, Gloxinias, Calceolarias, &c., &c., in all their attractive forms and colors, observing to give abundance of space between each plant, in order that specimens of fine symmetry may be obtained; watering freely overhead every morning with the syringe, in order to keep the whole clean and healthy.

Camelias will now have formed their buds for next year's blooms; they ought, therefore, to be removed out of doors to some cool shady place, there to remain during the summer months, where they will do much better and be more free of insects than they would under glass. Give a watering once a week with weak liquid manure.

Young plants from early spring inarches, may now be cut from the parent stem; keep them a little close in a cool frame for a few weeks, when they can receive more air. Azaleas should all be out of doors in an open place, exposed to the sun. It is a mistaken idea of some people, in placing these, as well Heaths and Epacris, in a shady situation during the hot summer months; they love light and a free circulation of air, but it is well in such a position to plunge the pots in old tan or sand, in order that the roots may be kept cool. Poinsettia Pulcherrima and Euphorbia Jacquineflora, should now be stimulated into growth by receiving a liberal shift and frequent waterings with liquid manure; head them well in, so that they may form strong bushy plants. Japan lillies that are pot-bound should

be shifted without delay. Gloxinias and Achimenes of late planting may be shifted into the pots in which they are to bloom; drain the pots well, and use a free, open, turfy, sandy earth, and keep the plants in a shady place.

Cinerarias and Calceolarias—so soon as they go out of bloom, can be removed to a cool, partially shaded place out of doors, when they should receive a moderate supply of water. Allamandas, Stephanotus, and other summer flowering climbers, should receive a shift and be trained to stakes or a trellis. Cactuses of the Epiphyllum kinds so soon as they have done blooming, should be pruned and shifted into fresh earth, when, so soon as they root may be watered freely. Begonias, as a tribe of plants, are very curious and ornamental for the green-house during the summer; they are mostly all of easy culture, requiring a light rich earth, and a shady rather humid situation. Attend to the hard wooded plants placed out of doors last month, by seeing that they are kept well tied up and receive a constant supply of water in dry weather.

Flower Garden and Lawn.—Continue to plant out in the borders and beds, such annual plants as have been raised in frames—also Salvias, Verbenas, Summer Chrysanthemums, Heliotropes, Scarlet and Rose Geraniums, Pentstemons, and Monthly Carnations, and if you have not finished the planting of Dahlias have this work completed without delay. Hyacinths and Tulips, so soon as they have done blooming and the leaves become yellow, should be taken up and the roots put in an airy place to dry, when the ground occupied by them should be planted with summer annuals, or young Monthly Carnations.—Young Rose bushes, either to remain permanently in the ground, or to be lifted in the fall, may still be planted; they make finer growths in this way, than when kept in pots—observing to open the ball and spread the roots when planting; and towards the end of the month, such budding as may be required can be done. In the shrubbery, such plants as Wigelias, Forsythias, and Spiraces, so soon as they have done flowering, should have the straggling branches cut moderately back, when they will push new wood and form handsomer bushes. Keep the grass on the lawn cut short and neat, passing the roller over it after a shower; weed and roll the walks frequently, and keep the grass and box edging in a trim and smooth condition. Stir up with the hoe the surface of all flower beds and borders, which greatly stimulates the growth of plants, as well as keeping in subjection the weeds.

Potatoes contain nearly all their nutriment (the starch) very near the surface; the heart has but little; hence, let the peeling be the thinnest possible.

Ladies Department.

NOTHING BUT LEAVES.

Nothing but leaves; the spirit grieves
Over a wasted life;
Sins committed while conscience slept,
Promises made but never kept,
Hatred, bubble and strife—
Nothing but leaves.

Nothing but leaves; no garnered sheaves
Of life's ripened grain;
Words, life words, for earnest deeds;
We sow our seeds, lo! tears and weeds,
To reap with toil and pain,
Nothing but leaves.

Nothing but leaves, memory weaves
No veil to cover the past,
As we return on our weary way,
Counting each mis-spent day,
We find sadly at last
Nothing but leaves.

And shall we meet the Master?
Bearing our withered leaves?
The Savior looks for perfect fruit,
We stand before Him humble, mute,
Waiting the word He breathes—
"Nothing but leaves."

OUR MARION'S MARRIAGE.

A BEAUTIFUL STORY.

"Mrs. Crofton! Mrs. Crofton!" How odd it appears to me to be called Crofton, and Mrs., too! I can hardly believe that I am married, although I am writing in this splendid library, and my husband has just left his morning kiss on my lips. It was really wonderful the way it all came about. It would certainly never have happened but for my visit to Mrs. Renton.

Last autumn I was invited with my parents and my two sisters to spend a couple of weeks at Firgrove with the Rentons. Mamma refused at first to let me go, because she thought that four persons were enough for one party, but Mrs. Renton would not listen to her. She said that, apart from the pleasure of seeing me, she found me invaluable when the house was full, because I did a thousand things for her convenience and the pleasure of her guests, which a servant couldn't do, and no other visitor would do; and that she should like to keep me not only two weeks but two years.

My sisters had each a regular outfit for the occasion, but mamma said that I needed nothing. I suppose she was right, for I had a sprigged muslin for the warm days, made out of a dress which Josephine had worn the year before, and for cold weather I had green silk, made of one of Georgiana's.

They were pierced a trifle, to be sure, for they had originally been low in the waist, and I wore nothing which didn't button to the throat; but I had a good supply of crimped ruffles to wear with them, and I thought then, and think still, that they were very pretty.

Mrs. Renton appeared delighted to see me, and although my sisters smiled at my credulity in thinking her sincere, my heart went out to meet her. Perhaps she didn't mean it at all, but I imagined she did, and that put me at ease at once. I still believe that I was right, for she gave me a little room which had belonged to her daughter Agnes, a lovely child, who died when she was only ten years old. There was her portrait, exquisitely painted, and with a heart full of love looking out from the meek blue eyes and voicing itself in the curves of the delicately moulded lips.

There, too, her bookcase—carved rosewood with glass doors—some of the most worn volumes, which were mature enough for girls of eighteen. There, also, were her writing desk and her work basket with the needles in an unfinished leaf, just as she left it. The chambermaid told me that I was the first person who had occupied the chamber since Agnes died, and although I was a little awed, and perhaps a little frightened, when I first went into it, I think its tranquil atmosphere, and the memories of generosity and self-denial which thronged about the beautiful picture, helped me to bear patiently the annoyances which I experienced during my stay.

For there were annoyances which I could not avoid, and which were at times hard to endure; although I ought not to complain, since they occurred in consequence of the favor in which I was held by those persons whom I admired and loved the most. The very first night after my arrival at Firgrove, Mrs. Renton came and sat down by my bed. For a few moments she was silent and I knew by her looks that it made her sorrowful to see me in Agnes's place. So I put my arms around her neck, and asked her to let me be, as far as I could, a true daughter of the house, and do, as far as I knew how, all that Agnes would do if she were there instead of me.

Mrs. Renton did not answer immediately; she wept silently, but I don't think there was any bitterness in her tears. Bye and bye she kissed me without saying anything of Agnes. Instead of alluding to her, she told me that some of her guests were selfish and exacting, and demanded more than their share of attention; that others were feeble and had a claim upon her, while she desired to keep a little time with Mr. Renton, and look a little after the twins, Maggie and Annie. "One day," she continued, "one day, my dear you will know what these perplexities mean."

I laughed and answered that I should never have a house of my own, for I was so small and dark and awkward that mamma despaired of seeing me married, and I was quite content to remain papa's darling, for that was the title which he always gave me.

Mrs. Renton replied pleasantly that she knew very well from papa how necessary I was to him, but that it was just possible that I might become as indispensable to another as I was to him.

After she left me I lay awake a long time, wishing I could know the very words papa used when he spoke of me to her; for although I knew he loved me dearly, he never told me so except by the tone of his voice and the warm glance of his eyes.

The principal topic of conversation among a part of the guests at Firgrove was the anticipated arrival of Mr. Gilbert Crofton, a brother of our hostess. Miss Amelia Monkton and her brother Conrad declared him to be by far the best match in the country. They spoke of him as remarkably handsome, of good family mansion, they said, with a magnificent lawn and garden, a fine library and endless quantities of silver and linen. I heard his name so often that I grew curious, and when a week passed by without bringing him, I said that I hoped we should have a peep at him before we should leave. I was sorry a minute after, for Josephine laughed sneeringly, and Georgiana replied that I expected to make a conquest of him.

He did arrive the same evening, but I saw very little of him, for in the morning there was never any room in the carriage for me to drive, or a horse for me to ride, and if walking was proposed the twins were sure to want me to dress their dolls or help on with a game. Then, in the evening, I was always needed to play the piano for the dancers, or make a fourth at whist or be beaten at chess by old Mr. Blakeman, who was pettish and quarrelsome over the board that every one but me declined his invitations.

When the fortnight was over my parents and sisters returned home, but Mrs. Renton wouldn't listen to the proposal to take me with them. She said that she had not been able to do anything for my pleasure, and that I must remain until there were fewer guests, so that I might have my share in the festivities of the house. After a deal of talking, mamma consented to leave me, on condition that I would spend three hours in the library every day over my Italian and German.

Mr. Crofton left the same morning my friends did, and I didn't expect to see him again; nor did I feel any regret; for, whenever he noticed me at all, it was in such a teasing way that I had hard work to appear indifferent. When I was fresh and in good spirits I ached to say something sharp and unmaid-

enly, and when I was tired out the tears would scarcely be kept back. I think I really enjoyed his absence, when, behold, late in the evening he reappeared, accompanied by a young sister, whom he called Angelica, and who was both pretty and good natured; and bringing a man servant, three saddle horses and two dogs. Oddly enough, everything was changed for me from that moment. Angelica (she insisted upon me calling her by her first name) took turns with me in playing the piano, and while she was at the instrument I danced with her brother. She also occasionally took my place at the whist-table, allowed herself to be beaten at chess by Mr. Blakeman, and aided me in the nursery games.

One of the new saddle-horses was kept for my sole use, and the two splendid dogs were never so happy as when trotting by my side about the grounds or curled up at my feet while I studied my dictionaries and grammars. Mr. Crofton was as teasing as ever when there were listeners about, but he defended me adroitly against Amelia Monkton and the Allans, who seemed to grudge me even a look at his face, and he seldom failed to share the library with me, for at least a part of three hours' confinement.

Sometimes he wrote letters, but more frequently he read with me Italian and German poets, instructing me respecting the force and point of the diction, quoting kindred passages from other writers, and explaining such imagery and allusions as I didn't fully understand. At such moments there was in his manner a mingled deference and tenderness which wholly won my confidence, and I sometimes looked up suddenly from my book, half doubting if indeed he were the same person who shot so many sparkling arrows at me in the presence of the other guests.

My wardrobe began to look scanty, and although Amelia Monkton and the three Allans sneered at my one evening dress, I should never have thought of asking mamma for anything. Mrs. Renton must have hinted to her the propriety of sending me some more garments, for soon after she had added a postscript to one of my letters, I received a handsome silk, cherry and black, beautifully trimmed with lace; a maroon-colored merino, with nice velvet ribbons, and a stout walking dress, with extravagantly heavy boots. Amelia and her companions sneered again at my preparations for a winter campaign, but Mr. Crofton, who dropped into Mrs. Renton's private sitting room while she was looking at the articles, exclaimed, upon seeing the boots, that they were just the things I needed, and that he would ask me to try them in an excursion to the Crags, a high bluff which commanded a lovely landscape.

Accordingly, the next morning he made up a party for walking, but he led us purposely, I have since ascertained, through such tiresome paths, and over

such wearisome hills, that everybody was full of complaints except Angelica and I, and after that he politely set the rest aside. I enjoyed these walks perfectly, because Mr. Crofton was at once so gentle and so entertaining. It was delightful to listen to fine poetry and spicy anecdotes amid the charming scenery which we passed, and although I could add but little from my own stores to the conversation, yet I am sure my face must have expressed the pleasure which I received.

My sky was not always cheerful. The idea that Mr. Crofton could regard me as anything but a mere school girl had not occurred to me. Mrs. Renton told me and others that her brother was pleased to find in the house a child intelligent enough for a companion, yet too young for flirtation and scandal, and that, were I older, he would not permit himself to offer such marked attentions. Yet Miss Monkton and her set made me so uncomfortable by a series of petty annoyances that I dreaded to enter the drawing-room and once or twice I even dined in the nursery with the twins to escape their little malice.

I could not accomplish this, do as I would. I was sitting with Maggie one twilight, holding her hand while she went to sleep, when Amelia and Conrad stopped to talk in the hall. The door was partly open, but they did not perceive it, and as my name was almost the first word spoken, I could not refrain from quietly listening to what came next.

"How ridiculous Gilbert Crofton's manner is toward that absurd child," said Amelia.

"She isn't absurd, and he isn't ridiculous," responded Conrad. "She is a bright little thing, homely to be sure, but perfectly unassuming, and good-natured almost to a fault; and he, I imagine, is glad to come across one of the sex who doesn't flatter him, and who doesn't say 'yes' eternally to his remarks and proposition, however extravagant they may be."

"At any rate it isn't right for him to be so exclusive in his attentions. By and bye she will think he wants to marry her."

"Perhaps he will want to marry her, but I lose my guess if she isn't as much astonished as anybody when he tells her so, if ever he does. One thing, however, is certain, Amelia, you only lower yourself by joining these ill-bred Allans in snubbing Miss Marion. I have seen Crofton's face turn absolutely white with rage when Clara Allan had stung her with her mean, suspicious shafts."

The speakers passed on, leaving me grieved and angry, and crushed, beneath the vague sense of injustice which I could not entirely understand. I half resolved not to go down to dinner, and then I remembered that Angelica was gone, and no one would be willing to play for the dancing, or to bear poor Mr. Blakeman's pettishness; so instead of in-

dulging myself in an unhappy evening alone, I made my prettiest toilet, did my duty thoroughly and cheerfully, and was rewarded by a precious half hour, with Mrs. Renton in her room before retiring to mine.

The Monktons and Allans departed, and two other sets came and went, but my hostess still found some excellent reason why I should remain, especially after Angelica had left. For two weeks we had an old gentleman who wanted somebody to read to him every day, so I gave my three hours of translation, a good exercise for me and pleasant for him, since I always selected something lively, if not positively comic. Next an aunt of Mrs. Renton's arrived, who was nearly blind. Usually, during her visit, Mrs. Renton was her constant companion. She walked, and drove, and sat beside her, describing everybody and everything about them, and suggestions which in conversation are telegraphed by the eyes. But I took her place, a great relief to her and no hardship to me, especially as Mr. Crofton sometimes assisted me for an hour, thus giving me time to run about the garden and fulfill my promises to mamma.

I had been at Firgrove three months when papa wrote me that he could no longer spare his darling, Mr. Crofton brought the letter to me in the library, and stood waiting for me to read it, after which he wished me to join Mrs. Renton and himself in a walk to the Crags.

"What does Papa write?" he asked, as I began to re-fold the sheet.

"He writes that I must go home directly, for he cannot spare his darling any longer."

Then Mr. Crofton said gravely and tenderly, "Neither can I spare my darling."

Notwithstanding he was so serious, I thought he was making sport of me. My cheeks crimsoned and my eyes flashed, and I said, "When you have teased me heretofore, Mr. Crofton, it has been on different subjects. To make sport of me now amounts to an insult."

"I am not making sport of you, Marion," he answered very gently. "I have loved you, God alone knows how much, ever since the first week of our acquaintance, when you moved so quietly about, sending peace and sunshine through the discordant elements of my sister's house, I ought to have spent this autumn at Aspinholt, but I could not leave you, I cannot part with you now, Marion. Let me try to make you love me."

He took my hand as he spoke and looked full into my eyes. I think he saw there an answering fervor for that moment I became conscious of my affection for him—an affection that had been strengthening hour by hour for many days. He must have seen it, I am sure, for he snatched me up in his arms, and carrying me straight to Mrs. Renton's sitting-

room, he exclaimed, "Mary, I have won her!"

I expected that Mrs. Renton would be overwhelmed with astonishment, and perhaps anger, but she embraced me quietly and warmly, and said, "Three months ago, dear Marion, I knew that you would one day be Gilbert's and mine."

Mrs. Renton accompanied Gilbert and me to my home. Papa was silently happy to see me again, silently sad at the thought that he had ceased to be first in my heart; but I cannot describe the reception mamma and the girls gave us. There was a refined deference in their manner toward my companion, which I never saw them exhibit before, and to me they were, for the first time, heartily affectionate. The period of petty neglect and small snubbing was over, as also was that of dresses made of discarded garments. Scarcely, indeed, was Mrs. Renton out of the house, before mamma started for the city to commence preparations for a splendid bridal outfit.

I can with difficulty persuade myself that that was six months ago, or that I am really writing in this noble library, with my husband's kiss warm upon my lips, and the servant's "Mrs. Crofton" echoing in my ears.

NOSEGAYS.

Flowers should not be cut during sunshine, or kept exposed to the solar influence, neither should they be collected in large bundles and tied tightly together, as this invariably hastens their decay. When in the room in which they are to remain, the ends of the stalks should be cut clean across with a very sharp knife (never with scissors), by which means the tubes through which they draw the water are left open, so that the water ascends freely, which it will not do if the tubes of the stems are bruised or lacerated. An endless variety of ornamental vessels are used for the reception of such flowers, and they are all equally well adapted for the purpose, so that the stalks are inserted in pure water. This water ought to be changed every day, or once in two days at the furthest, and a thin slice should be cleanly cut off from the end of each stalk every time the water is removed, which will revive the flowers.

LOVE FOR TREES.—We love trees. They seem like things of life. They stand like sentinels while we sleep, and whisper to us through the day. It seems as though they were our kindred, and we hold converse with them as we watch their swaying branches through the long summer days.

The bursting buds look up
To greet the sunlight while it lingers yet
On the warm hill side, and the violet
Opens its azure cup

Meekly, and countless wild flowers wake to fling
Their earliest incense on the gale of Spring.

DOMESTIC RECIPES.

RHUBARB WINE.—Peel and slice as for pies; put a very small quantity of water in the vessel, only just enough to cover the bottom; cover the vessel and gradually bring to a slight boil; then strain, pressing out all the liquid; to this liquid add an equal quantity of water; to each gallon (after mixed) add from four to five pounds of brown sugar; set aside, ferment and skim like currant wine; leave in the cask and bulk as long as possible before sending away. All wine is better kept in casks.

STRAWBERRY WINE.—Press out the juice from the strawberries, and add two quarts of water to each quart of juice. Loaf sugar is then added at the rate of one pound to the gallon. Put into a barrel in a cool cellar, and ferment in the usual way.

CURRANT WINE.—One quart of currant juice, two quarts of water, three pounds of crushed sugar, and to each gallon of the mixture add 1 gill pure brandy. Place a cask upon its side with the bung up, and fill it entirely. It will require replenishing, as it wastes by fermentation, and the cask should always be kept full.

CURRANT JELLY.—Pick fine red and large ripe currants from the stems, bruise them and strain the juice from a quart at a time through thin muslin, pressing it gently to get all the liquid. Put a lb. of white sugar to each pound of juice; stir it until it is all dissolved; set it over a gentle fire; let it become hot and boil for fifteen minutes; then try it by taking a spoonful into a saucer. When cold, if it is not quite firm enough, boil it for a few minutes longer. It may be made by standing in the sun, without boiling, if put in a very warm place, and is generally of a much better color than when cooked by the fire.

STRAWBERRIES.—This delicious fruit is so acid that it requires the full complement of a pound of sugar to a pound of fruit to prevent its spoiling before winter. They preserve their shape and color better if they are only partly cooked in the syrup, and then allowed to stand in the sun two or three days; but if cooked entirely by the fire, they should be put into jars while hot and sealed immediately.

RASPBERRY VINEGAR.—Take three or four quarts of raspberries, put them in a stone crock and cover them with vinegar. Let them stand twenty-four hours. Then strain this juice through a jelly-bag and pour it on to fresh berries, letting this stand another day. Repeat this process until you have the quantity you desire. Add to each pint of juice one pound of sugar. Put it into a preserving kettle and allow it to heat sufficiently to melt the sugar. When it is cold, put it into bottles. It will keep several years.

PATENT CLAIMS

ISSUED FROM THE U. S. PATENT OFFICE,

(APPERTAINING TO AGRICULTURE,)

From the 8th March to 19th April, 1864.

FROM THE SCIENTIFIC AMERICAN.

- 41,977.—Plow.—Wm. Hinds, Little Falls, N. Y.
 42,009.—Harvester.—R. W. McClelland, Springfield, Ill.
 42,011.—Drilling Machine.—William Morton, Woodhull, N. Y.
 42,013.—Barrel Churn.—Lucius H. Muzzey, Springfield, Ohio.
 42,014.—Potato Planter.—William Nevins, Irving, N. Y.
 42,017.—Bee-hive.—Harrison Ogborn, Richmond, Ind.
 42,019.—Mode of securing a Desirable Color to Tobacco.—F. M. Pearl, Daviess County, Ky.
 42,027.—Huller and Screen.—Geo. Stephenson, Zionsville, Ind., and John J. Crider, of Greenfield, Ind.
 42,029.—Churn.—James Thompson, Vevay, Ind.
 42,030.—Barrel Churn.—Pelatiah Thompson, Springfield, Ohio.
 42,034.—Saw for felling Trees.—S. Warner, Enfield, Mass.
 42,046.—Baling Press.—Caleb B. Fleetwood, Edward W. Morten, Vincennes, Ind.
 42,069.—Grain Drill.—Alex. Brooks, Factorsville, N. Y.
 42,079.—Horse Rake.—O. D. Dunham, Plainwell, Mich.
 42,081.—Scythe Fastening.—P. Frost, Springfield, Vt.
 42,085.—Plows.—William Henry, Wyoming, Pa.
 42,088.—Potato-digger.—R. D. Jones and Thomas Purcell, Rochester, N. Y.
 42,093.—Beehive.—Rodman Lovett, Canton, Ohio.
 42,094.—Stone and Root Grubber.—James B. Lyone, Milton, Conn.
 42,097.—Corn Harvester.—Wm. M. Mason, Polo, Ill.
 42,112.—Grain Drill.—Walter Ross, Oshkosh, Wis.
 42,114.—Corn-sheller.—Asa F. Severance, Concord, N. H.
 42,116.—Grain Drill.—U. H. Shockley, Litchfield, Ill.
 42,132.—Attachment to Fanning-mill Shakers.—Joseph Van Houten, Mount Morris, N. Y.
 42,148.—Harvester.—John H. Snyder, Kilbuck, Ill.
 42,151.—Corn Planter.—John Agnew, Bath, Pa.
 42,169.—Harvester sickle.—Isaac C. Crane, Edgerton Ohio:
 42,171.—Raking Attachment to Harvesters.—David Davis, Joseph Hiebeler, & Samuel A. Porter, Prescott, Wis.
 42,173.—Grain-Cradle.—D. Devoe, Illion, N. Y.
 41,176.—Retarding blossoming of Eruit Trees.—Cyrus Fisher, Leesburg, Ohio.
 42,177.—Corn Planter.—George W. Brown, Galesburg, Ill.
 42,178.—Corn Planter.—George W. Brown, Galesburg, Ill.
 42,179.—Corn Planter.—George W. Brown, Galesburg, Ill.
 42,181.—Bee-hive.—W. A. Flanders, Shelby, Ohio.
 42,203.—Steam Wagon.—Robert H. Lecky, McClure, Pa.
 42,206.—Cotton Gin.—Wm. H. Livingston, New York City.
 42,220.—Paw-handle.—S. J. Olmstead, Binghamton, N. Y.
 42,241.—Cane-stripper.—Wm. Todd, Barnesville, Ohio.
 42,255.—Harvester.—W. A. Kirby, Auburn, N. Y.
 42,258.—Gang Plow.—Robert Nation, Chebanse, Ill.
 42,265.—Plow.—Samuel Aland, Rome, N. Y.
 42,281.—Corn-sheller.—Jacob Brinkerhoff, Auburn, N. Y.
 42,275.—Churn.—Giles Cramton, Marshall, Mich.
 42,282.—Harvester.—Daniel D. Gitt, Arenasville, Pa.
 42,290.—Grain Drill.—Gideon Huntington, Norwichville, Canada West.
 42,296.—Harvester.—L. G. Kniffen, Worcester, Mass.
 42,309.—Horse Rake.—John Robinson, Lawrence Co., Pa.
 42,310.—Apparatus for reducing Fish to Guano, &c.—Thos. L. Robinson, Boston, Mass.
 42,322.—Grain-binder.—S. J. Wallace, Carthage, Ill.
 42,323.—Wood-splitting Machine. Wm. Wibirt, Buffalo, N. Y.
 42,331.—Harvester.—L. G. Kniffen, Worcester, Mass.

- 42,333.—Grain-dryer.—Fred. H. C. Mey, Buffalo, N. Y.
 42,350.—Grain Drill.—Wheeler M. Conger, Sugar Valley, Ohio.
 42,354.—Churn.—J. B. Davidson, Oberlin, Ohio.
 42,370.—Convertible Planter and Cultivator.—S. E. Harrington, Greenfield, Mass.
 42,374.—Tank for Hot-houses.—Henry E. Hooker, Rochester, N. Y.
 42,385.—Drying Fruit.—Ira Lynde, Marathon, N. Y.
 42,387.—Fruit-gatherer.—F. A. Maxfield, East Spring Hill, Pennsylvania.
 42,390.—Grain Drill.—F. S. Mills, Iberia, Ohio.
 42,391.—Implement for Transplanting.—F. Milo, Kingston, Canada West.
 42,393.—Cheese Press.—N. Norcross, Livermore, Maine.
 42,396.—Preserving Eggs, Meats, &c.—Jas. Perkins, Newark, N. J.
 42,401.—Plow.—Daniel Rhodes, Pawtuxet, R. I.
 42,408.—Harrow.—Andrew Safey, Mount Vernon, Iowa.
 42,409.—Grain Separator.—Benjamin D. Sanders, Wellsburgh, West Virginia.
 42,410.—Harvesting Machine.—Jacob Seibel, Manlius, Ill.
 42,416.—Harvester.—Beniah Titcomb, Baltimore, Md.
 42,420.—Harvester.—W. O. Tvbbs, Spring, Pa.
 42,424.—Grain Drill.—T. W. Watts, Kushville, Ill.
 42,440.—Harvester.—W. A. Kirby, Auburn N. Y.

MANUFACTURES FROM CORN-HUSKS.—Mr. Canisius, American Consul at Vienna, has sent to the Department of Agriculture at Washington a communication upon the subject of manufactures from the husks of Indian corn at Schlägelmühle, Austria. The enterprise appears to have been successful beyond the most sanguine expectations. Among the articles manufactured from the husk fibre are yarn, knapsacks, paper stuff, linen, drillings, oil-cloth, fire-buckets, tar covers, letter envelopes, flower paper, cigarette papers and photographic and parchment paper. The linen does not appear to be of fine texture but is well adapted for all common purposes. It is of close texture, heavy and very strong. Corn-husk paper is sold at Vienna at prices as low as paper made from rags, and is said to be equal to the finest linen paper. For tracing and drawing papers it is said to be superior to the article now in use. Mixed with rags, the husk-fibre produces the finest kind of fancy paper. The cost of the manufacture last year at the Imperial Mills at Schlägelmühle was 273,740 florins, and the amount of the product 379,000 florins, making a profit of 105,260 florins, or 38½ per cent.

INSTINCTS OF SPIDERS.—Spiders are greatly influenced by atmospheric changes, and on that account they have been termed "living barometers." If the weather is likely to become rainy, windy, or in other respects disagreeable, spiders fix the terminating filaments on which the whole web is suspended, unusually short. If, on the other hand, terminating filaments are made uncommonly long, the weather will be serene, and continue so at least ten or twelve days.